Department of Health and Human Services

Nevada State Health Division

Bureau of Child, Family and Community Wellness

Immunization Program

Program Update SFY 10/11

The Mission of the Health Division is to Promote and Protect the Wellbeing of Nevadans and Visitors to our State by Preventing Disease, Injury and Disability

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Nevada State Immunization Program Overview

The Nevada State Immunization Program (NSIP) operates under the direction of the Nevada State Health Division, Department of Health & Human Services. The NSIP is funded by the federal Immunization and Vaccines for Children Grant CFDA# 93.268, which includes two funding sources: Vaccines for Children (VFC) entitlement and Section 317 of the U.S. Public Health Service Act.

Mission
To decrease vaccine-preventable disease morbidity through improved immunization rates among the children, adolescents and adults in Nevada.

Goals
To fulfill this mission, the NSIP adheres to the Centers for Disease Control and Prevention's (CDC) Immunization Program Operations Manual (IPOM) grant objectives:

- Adolescent Immunization
- Adult Immunization
- Education, Information, Training & Partnerships
- Epidemiology and Surveillance
- Immunization Information Systems
- Perinatal Hepatitis B Prevention
- Population Assessment
- Provider Quality Assurance
- Vaccine Accountability & Management

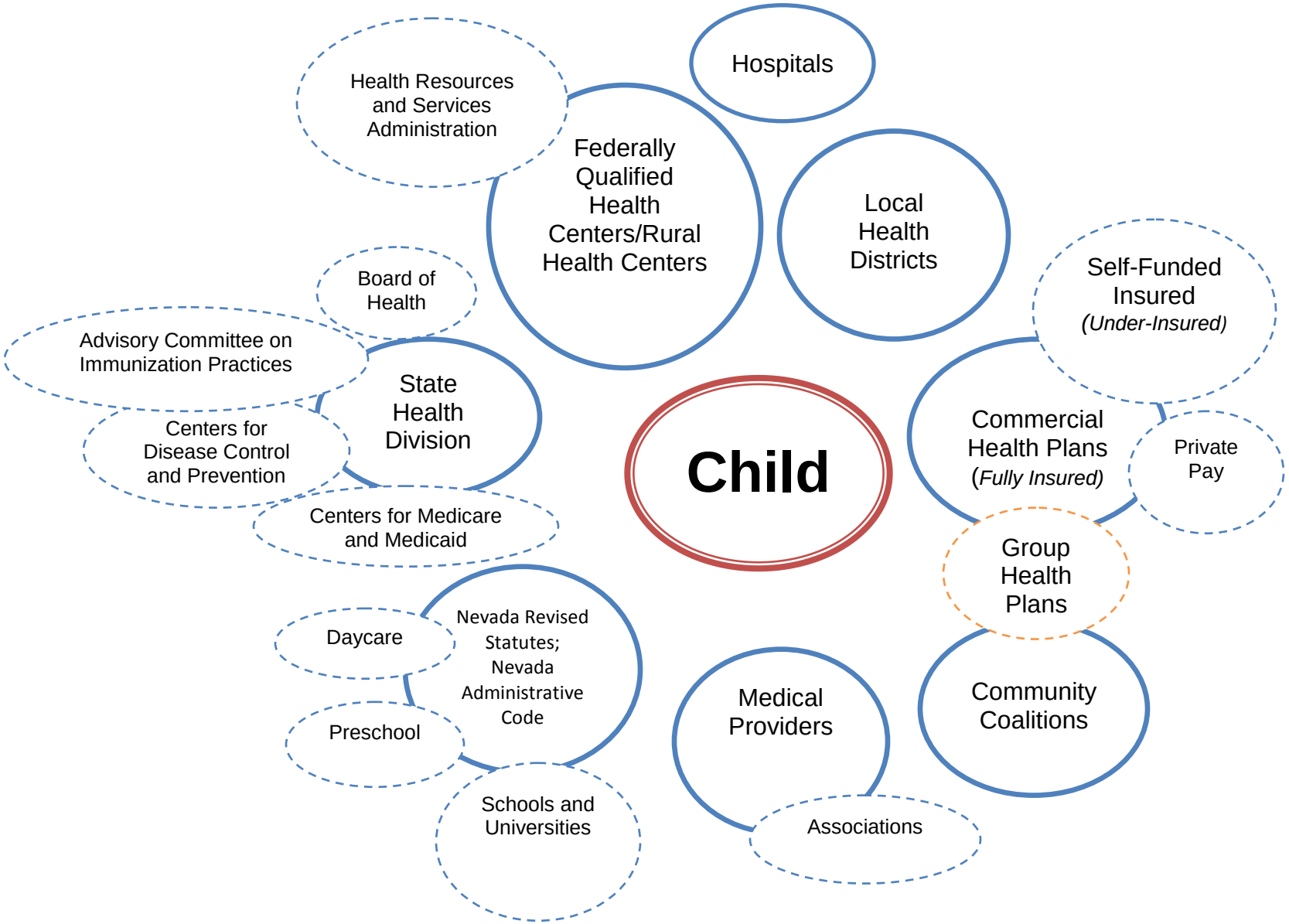
Program Components
The NSIP meets these goals by developing, managing and supporting the following program components:

1. **Vaccines for Children (VFC)**
    - Launched in 1994
    - Ensures eligible children aged 18 and younger have access to free vaccines
    - Eligibility criteria:
        - Medicaid eligible
        - Alaska Native or American Indian
        - Uninsured
        - Underinsured (when receiving vaccines in a Federally Qualified Health Center (FQHC) or Rural Health Center (RHC))
2. In Nevada, NV Check Up enrolled children are eligible for state-supplied vaccine
3. Vaccine prices negotiated by CDC and ordered at the federal contract price

4. **Immunization Information System (IIS) – *Nevada WebIZ***
    - Current system launched in 2003
    - Confidential, population-based online immunization data registry
    - By centralizing storage of vaccination data in Nevada, we can:
        - Identify those at risk in the event of a disease outbreak
        - Locate communities with low immunization coverage rates
        - Consolidate scattered records for Nevada's highly transient population
    - Statute and regulation established mandating use of the IIS as of July 1, 2009
    - In March 2009, Nevada WebIZ will begin participation in the CDC's Registry Technical Assistance Program

Systems that Support Vaccinating Children – SUMMARY OVERVIEW

State of Nevada Health Division



NEVADA WEBIZ in the news

QUARTERLY NEWSLETTER DECEMBER 2008

Vaccines for Children (VFC) Program Change- January 2009

In 1994, the national Vaccines for Children (VFC) program, a federal entitlement program, began to provide vaccines at no cost to VFC-eligible children through enrolled public and private providers. All children 0-18 years of age who are Medicaid enrolled or Medicaid eligible, uninsured, American Indian or Alaska Native, or underinsured are eligible to receive VFC vaccine. The VFC program covers most children who do not have insurance coverage.

Since 1994 the Nevada State Immunization Program (NSIP) has provided all or most vaccines to all children in NV at no cost; however, due to the drastic decreases in funding coupled with increasing vaccine costs a critical decision had to be made. The NSIP decided to change its immunization policy to Vaccines For Children (VFC) only as of **January 1, 2009.**

The NSIP ***will continue*** to provide vaccines for children who are eligible for the VFC program as well as the "Nevada Check Up" children. Many health insurance plans cover vaccines; however, there are many variations from one health plan to another. If your patient's insurance does not cover vaccines they are considered **underinsured** and may be eligible to receive free VFC vaccines at a Federally Qualified Health Center (FQHC) or Rural Health Clinic (RHC), but this can prevent a child from receiving vaccinations in their medical home. Deputization can change this.

An FQHC or RHC can delegate its authority to another medical provider to administer the VFC vaccine to VFC eligible children- **this is deputization**. Deputization eliminates cost as a barrier to the underinsured population and keeps children in their medical home, rather than being referred to an FQHC or RHC. Studies have shown that children are most likely to be immunized on time if they have a single medical home and as few visits with providers as necessary. Additionally if a parent must pay out-of-pocket expenses each time their child is vaccinated, this can become a barrier to consistent well-child visits.

The NSIP is currently accepting Delegation of Authority applications from existing VFC providers. For more information on this transition, as well as the Delegation of Authority form, please visit www.health.nv.gov.

Introducing WebIZ Staff

The WebIZ team has grown and we would like to introduce our three new staff members. Marie Tasker, Southern Nevada Training Manager, comes to WebIZ with 10 years experience with the American Red Cross and has a master's degree in Organizational Management. Marie is responsible for training and recruiting new providers in Southern Nevada. Victor Lamas recently joined the WebIZ team as "frontline" help desk support. Victor is responsible for answering the help desk phone line and setting up new providers and users in the system. Prior to WebIZ, Victor worked for the Nevada State Health Division's Maternal and Child Health Program (MCH), staffing the MCH Health line for new mothers. Hilary Smith, Health Program Specialist, is a new addition to the WebIZ team. She is a recent graduate from the School of Public Health at the University of Nevada Reno. Hilary earned her bachelor of science in the health ecology program. Welcome to WebIZ.

Marie Tasker

Hilary Smith, Victor Lamas

WebIZ Software Upgrade

Nevada WebIZ is getting an upgrade! Just as the other software we use every day issues new versions of its programs, WebIZ is coming out with Version 8.0. In this new version, there are some wonderful new features, such as new dynamic reports, more accurate vaccine recommendations and a more customizable patient reminder function. The WebIZ staff is hard at work reviewing the upgraded version of the site and hopes to deploy it to you, the users, around the beginning of 2009. If you are part of the WebIZ email distribution list, keep your eyes on your email inbox for information on the deployment date.

WEBIZ COMMUNITY

Provider Spotlight
Lake Mead Pediatrics, North Las Vegas

DR. EMMANUEL TAGUBA runs the Lake Mead Pediatrics office in North Las Vegas, where he and his staff create a friendly, calm environment for children and their parents. Melinda (Lynn) Miciano, who processes billing and records immunizations in WebIZ, greets patients as they pass the beautifully painted fish covered walls. On average the office immunizes 150 patients each month and many more during the demanding back-to-school season.

Lake Mead Pediatrics started using WebIZ in October 2005. Because Dr. Taguba is a Vaccine for Children (VFC) provider, he decided to use the registry to aid in his VFC reporting requirements to the state Immunization Program. To fulfill the state's requirements, they signed up for level 3 usage to be able to track doses administered and manage their inventory.

Melinda Miciano

They have a process for incorporating WebIZ into their daily routine which enables them to track patients, track inventory, and easily report required VFC information to the state supplied vaccine program. Lake Mead Pediatrics does not have fully implemented electronic medical record (EMR) software; therefore, the nurse records the patient's WebIZ identification number on their chart. After the nurse sees a patient, she gives the chart to Lynn to process the billing and record the vaccinations into WebIZ. At the end of each day, Lynn runs a dosage report to check that the doses administered by the nurse match the information in WebIZ.

Dr. Taguba understands the importance of populating the statewide immunization registry. After he began using WebIZ, he and his staff created WebIZ records for their new patients and after about two and half years they have entered 97% of their existing patient records into the system. Among his peers of providers, Dr. Taguba publicly advocates using WebIZ because he knows it helps save time searching for a record from another office and it helps prevent potential duplicate vaccinations. In addition, Dr. Taguba makes sure his staff carefully search and input data into the registry as it can only be as good as the information that users put in.

This past back-to-school season, their office was able to assist many parents in printing their child's official immunization record for school entry as well as administering any needed shots. **Because the fall is so busy with school entry requirements, using WebIZ has helped to save a lot of time and energy.** Dr. Taguba can't imagine not using WebIZ.

Pharmacy Regulations

Effective September 18, 2008, the adopted amended regulations of the State Board of Pharmacy, Section 6 (R115-08), declare: A pharmacist or intern pharmacist acting under the direct and immediate supervision of a pharmacist who administers immunizations shall report the information required for inclusion in the Immunization Information System established by the Department of Health and Human Services pursuant to NRS 439.265 and the regulations adopted pursuant thereto.

WEBIZ LESSONS

WebIZ Lesson
"Closing Patient Programs"

Tips on managing your patient roster to accurately reflect the patients you serve

WebIZ functions with the concept of a patient having a "Primary Care Provider," sometimes called a "medical home." It does this by entering a patient into an "Immunization Program." If you serve as the Primary Care Provider for a patient, you should be the "owner" (aka "Default Clinic") of their WebIZ record. ***Managing your Patient Programs on a regular basis helps your office maintain an accurate vaccine coverage level rate- especially important for VFC assessments!!***

To see if you are the default clinic for a patient record, locate the patient record, go to the "Demographics" screen and click on the "Default Clinic" button at the top of the screen.

There are two ways to become a patient's default clinic: When you create a new record, your office automatically becomes the default clinic. On an existing record, when you record a vaccination that has been administered in your office, your office automatically becomes the default clinic.

What happens if my office is no longer the Primary Care Provider?

If your patient moves away, begins seeing a different provider, has ignored your reminders, or has completed their childhood vaccinations, you may close their patient program in WebIZ to "cut the tie" between your office and the patient. To do so, locate the patient record and click on "Programs." You should see an "open date" indicating when that patient was entered into the "Immunization Program"- click on "Update" on the right side of the screen. Next, enter a "close date"- this should be the date you were notified or decided that you will no longer be seeing that patient. Then, enter a "close reason"- there should be a reason in the dropdown list appropriate to your situation. Enter any notes you wish in the "Comments" field and click "Update."

What happens if we are only seeing a patient for one or two doses?

If your office is not going to be a patient's Primary Care Provider, but you are giving the patient vaccinations, you may "disown" the record one of two ways:

1. *If you had to create a new WebIZ record:* record the vaccination and immediately close the patient program, making the close date the same as the vaccination date.

Continued page 4

Dear WebIZ,

Question: One of our WebIZ users no longer works here. How do I close their account?

Answer: To close a user account, you may either email the help desk (izit@health.nv.gov) or fax in a completed WebIZ Change Form. If you do not have a blank change form, call or email the WebIZ help desk.

Question: I'm trying to record a vaccination administered in our office, but I don't see it in the dropdown list.

Answer: The dropdown list on the "Add" screen is filtered by your patient's age and vaccination history. Vaccines are licensed for specific age ranges- these age ranges are listed in the package insert that comes with your vaccine shipment. These age ranges are then programmed into WebIZ. For example, Tdap would *not* show up for a 70 year old patient, but it would for a 63 year old. If you did give a shot to a patient outside of the licensed age range, you should still record the vaccination. To do so, call the help desk for assistance. Have your patient's information ready- it only take a few minutes to record.

ADDITIONAL INFORMATION

WEBIZ LESSON CONTINUED

2. *If the patient had an existing record:* when recording the vaccination, check the box on the "Quick Add" (for Type 1) or "Add Vaccination" (for Types 2 & 3) screen that says "Do not set this clinic as the Default Clinic for this Patient." **This would be especially appropriate for mass flu vaccination clinics.**

Closing a Patient Program does not delete the patient record. If the patient moves back and you again become their Primary Care Provider, their patient program will be reopened upon the recording of a vaccination and your office will again become the "owner" of their record.

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TRAINING

Nevada WebIZ offers training sessions in locations around the state. Attendance is recommended for all new WebIZ users. All WebIZ Training sessions are offered at no cost.

WebIZ training sessions teach basic navigation, how to find and manage patient records and how to record vaccinations, including capturing vaccine lot details.

We also want to provide videoconferencing options. Please let us know if you have facilities in your area.

For Northern Nevada training contact the WebIZ helpdesk and for Southern Nevada training contact Marie Tasker. See contact info to the left.

Effective October 2008, all Advanced training sessions have been cancelled and will not be provided until further notice. Scheduled sessions will provide enough guidance to properly use the system.

WebIZ Fun Facts

Renown was the first hospital to initiate the "Cocooning Project." The Cocooning Project was designed to increase adult pertussis vaccinations by administering Tdap vaccines to parents at hospitals when babies are born. To learn more about the project click here.

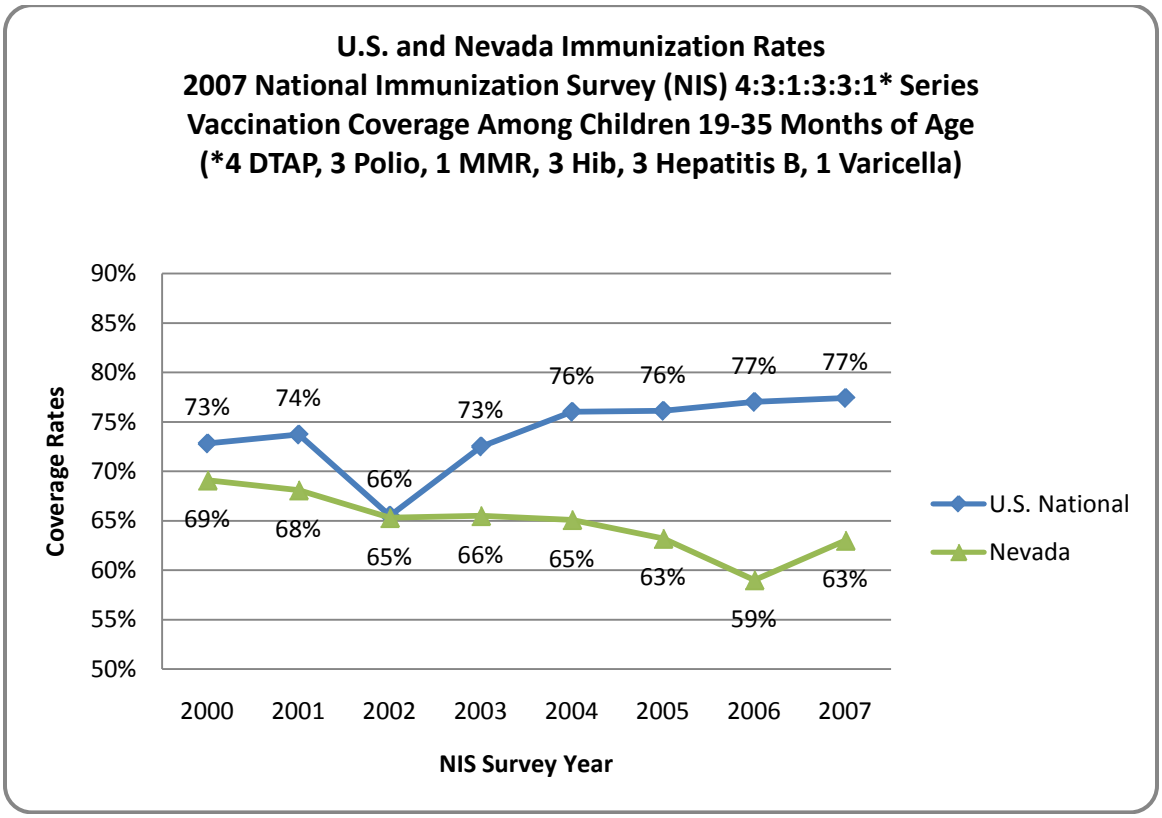
In 2008, WebIZ signed up and trained 774 users! Let's make 2009 a record breaking year.

WebIZ is supported by the State of Nevada and CDC grant # 2H23IP922549

Immunization Coverage Rates are a means of estimating "up to date" immunization status in a specific age group. The standard measure is to estimate coverage rates for children 19-35 months of age in order to: 1) identify groups at risk of contracting vaccine preventable diseases; 2) stimulate efforts to increase coverage rates; and 3) evaluate the effectiveness of immunization strategies. By 19 months a child should have received the complete recommended series of vaccinations for DTaP, Polio, MMR, Hib, Hep B, Varicella, and Pneumococcal (PCV7).

The National Immunization Survey (NIS) is an annual telephone survey that was implemented in 1994 as a national vaccination surveillance system for infants and young children. Immunization providers verify immunization information obtained from parents. The NIS data is then drawn from the provider-verified dataset.

There are significant limitations of the NIS that should be noted. The Centers for Disease Control and Preventions (CDC) has cautioned against over-reliance on state immunization coverage rankings. In addition, less populated states like Nevada have small sample sizes that preclude sub-state and multivariate analyses.



There are a number of complex factors that affect immunization coverage rates. These include:

- High population growth;
- High transience rates;
- Immunization record scattering as children switch providers;
- Inadequate number of immunization providers; and

- Lack of awareness about the importance of immunizations.

Though the immunization coverage rates are low, our disease rates are also low, indicating high community immunity. Immunization rates at school entry are above 90%. Despite low disease rates, it is important to maintain high vaccination coverage levels across the life span to ensure that Nevadans are protected from potentially deadly diseases.

FACTORS INFLUENCING IMMUNIZATION RATES IN NEVADA

Negative Factors

Lack of access to Preventative Health Care

- Uninsured, underinsured, Medicaid, and Nevada Check Up children often rely on public health clinics for immunizations
- Hours of operation of public health clinics not convenient for working low-income families
- Clinics are not accessible by public transportation
- Inadequate public health capacity in Nevada
- Shortage of pediatricians (NV is among the lowest 8 states in #pediatricians/#children)
- Nevada ranks 50th in access to preventative health care for children

Parent/Guardian

- Fear of vaccine safety (exposure to polarized rhetoric and unscientific statements)
- Lack of knowledge about vaccine schedule
- Lack of financial resources and insurance
- Lack of awareness of vaccine accessibility and availability
- Lack of transportation

Providers

- Do not follow ACIP schedule
- Failure to review immunization record at every visit
- Financial barriers to privately purchasing vaccines for insured children
- Inadequate reimbursement rates for vaccine and office visit
- Do not participate in the state immunization registry resulting in record scattering
- Low provider participations rates in Medicaid and Nevada Check Up

Vaccine funding

- 17% of Nevada's children are uninsured
- 50% of Nevada's children are uninsured or underinsured
- 14.5% of Nevada's children were enrolled in Medicaid in 2007 (lowest % in the nation)
- In 2006, Nevada had the 3rd lowest public health funding per capita ($36)
- Inadequate benefit coverage provided by the private insurance market

Factors That are not Proven to Impact Immunization Rates

- Vaccine Supply Policy

Steps Taken by NSHD to Increase Immunization Rates in Nevada

- WebIZ – state immunization registry-mandatory reporting begins July 2009
- State Vaccination Requirements -daycare, school and college
- Deputization of private providers to keep the underinsured in the medical home

- VFC program provides free vaccine to providers for American/Alaskan native, uninsured, Medicaid eligible, and underinsured children
- Partner with Clark County School District to obtain data on un-and under-immunized children to identify pockets of underserved population.
- Assisting providers in raising rates in their clinics individually.
- Establishing and utilizing existing data to identify areas at risk for low immunization rates so that we can better target limited funds to populations who need it most.
- Working with the Centers for Disease Control to establish a method for evaluating immunization coverage levels in local communities on an annual basis.
- Working with community-based private and public partnerships to improve immunizations.

Rates and Data:

4:3:1:3:3 series data (5 dose series)

- In 2007, 4:3:1:3:3 coverage levels are as follows. The 4:3:1:3:3 series is 4 diptheria/tetanus/pertussis (DTaP), 3 polio, 1 measles/mumps/rubella (MMR) 3 Haemophilus influenzae type B (Hib), and 3 Hepatitis B vaccines.
  - U.S. 80.1% (±1.0%)
  - Nevada: 66.7% (±7.5%)

- Data was not broken out separately for Clark County in 2007.
- Nevada's coverage levels for this series showed an increase of 3.0% (±10.4%) from the 2006 estimate of 64.7% (±6.0%); however this increase is not statistically significant.

4:3:1:3:3:1 series data (6 dose series)

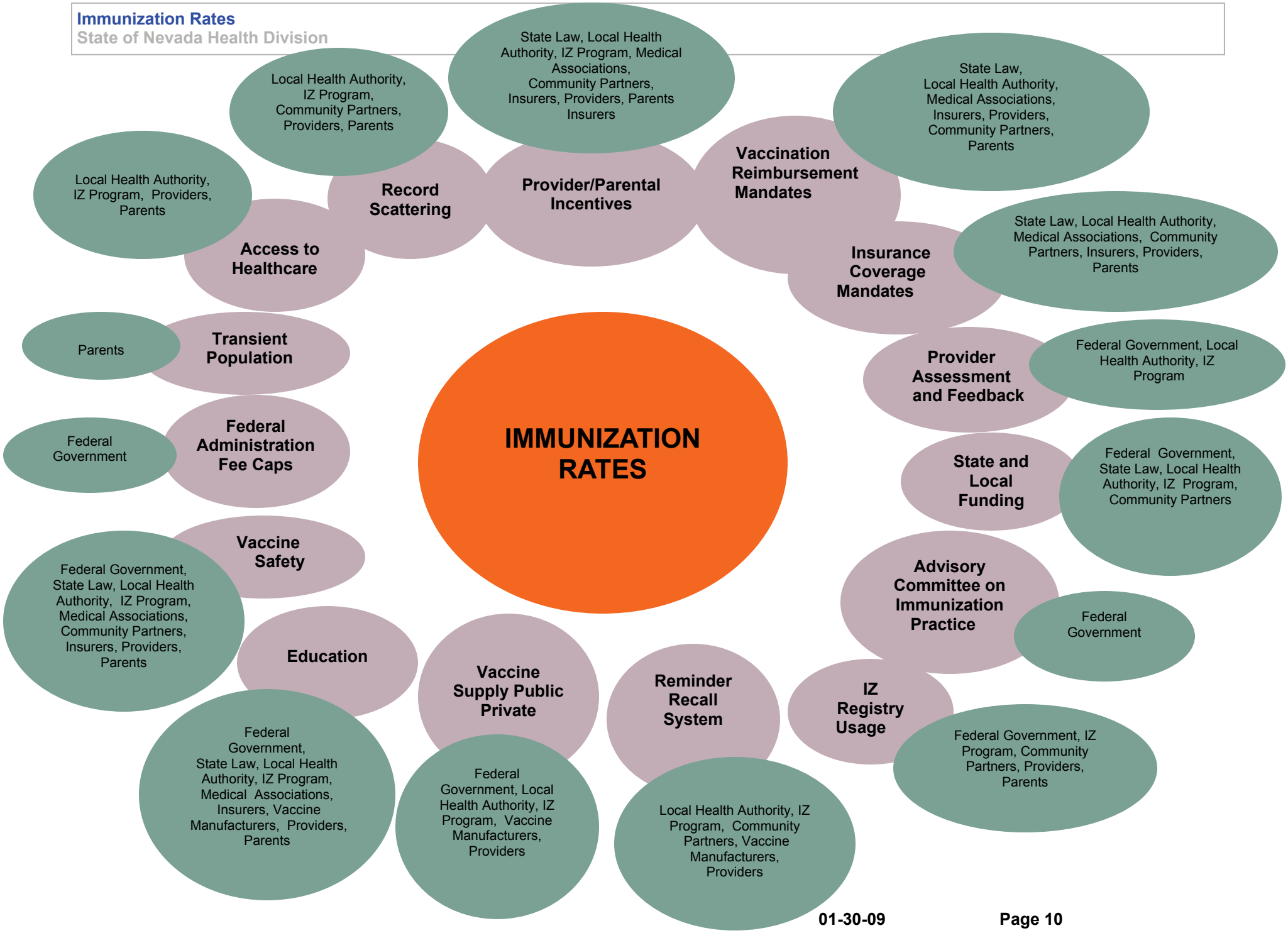
- Nevada was among the five states with lowest 4:3:1:3:3:1 series coverage. The 4:3:1:3:3:1 series is 4 diptheria/tetanus/pertussis (DTaP), 3 polio, 1 measles/mumps/rubella (MMR), 3 Haemophilus influenzae type B (Hib), 3 Hepatitis B, and 1 Varicella (chickenpox) vaccines. This series represents the core vaccines administered to children by the age of two and is the standard by which the federal government measures progress.

- Based on the 2007 NIS data, estimated 4:3:1:3:3:1 coverage for Nevada was:
  - U.S. 77.4% (±1.1%)
  - Nevada: 63.1% (±7.6%)

- Data is not currently available by county in Nevada.
- Nevada's coverage level for this series ranks it as the lowest state for 4:3:1:3:3:1 coverage levels.
- Nevada's overall coverage rate for the 4:3:1:3:3:1 series showed an increase of 3.6% (±9.6%) from the 2006 estimate of 59.5% (±7.4%).
- Nevada experienced a large increase in coverage levels from 2001-2002 and a plateau from 2002-2006. Overall, rates improved in most categories in 2007.

Vaccine Specific Data

- Nevada experienced a statistically significant increase from 2006 to 2007 estimates for 3 doses of PCV7 (+17.5% ±10.5).
- The differences for other vaccines ranged from -2.4% for 4 doses DTP to +4.1% for 3 doses HepB, but none of these differences were statistically significant.


IMMUNIZATION RATES
Record Scattering
Local Health Authority, IZ Program, Community Partners, Providers, Parents
Provider/Parental Incentives
State Law, Local Health Authority, IZ Program, Medical Associations, Community Partners, Insurers, Providers, Parents Insurers
Vaccination Reimbursement Mandates
State Law, Local Health Authority, Medical Associations, Insurers, Providers, Community Partners, Parents
Access to Healthcare
Local Health Authority, IZ Program, Providers, Parents
Insurance Coverage Mandates
State Law, Local Health Authority, Medical Associations, Community Partners, Insurers, Providers, Parents
Transient Population
Parents
Provider Assessment and Feedback
Federal Government, Local Health Authority, IZ Program
Federal Administration Fee Caps
Federal Government
State and Local Funding
Federal Government, State Law, Local Health Authority, IZ Program, Community Partners
Vaccine Safety
Federal Government, State Law, Local Health Authority, IZ Program, Medical Associations, Community Partners, Insurers, Providers, Parents
Advisory Committee on Immunization Practice
Federal Government
Education
Federal Government, State Law, Local Health Authority, IZ Program, Medical Associations, Insurers, Vaccine Manufacturers, Providers, Parents
Vaccine Supply Public Private
Federal Government, Local Health Authority, IZ Program, Vaccine Manufacturers, Providers
Reminder Recall System
Local Health Authority, IZ Program, Community Partners, Vaccine Manufacturers, Providers
IZ Registry Usage
Federal Government, IZ Program, Community Partners, Providers, Parents

2007 State Ranking of Immunization Rates by Vaccine Supply Policy Mandatory Reimbursement Laws; Purchasing Pools

Immunization Coverage Ranking – National Immunization Survey 2007[1]	State	Vaccine Supply Policy[2]	Mandatory Vaccination Coverage Statutes[3]	Purchasing Pool[4]
1	Maryland	VFC and Underinsured	X	
2	New Hampshire	Universal	X	
3	Hawaii	Universal Select	X	
4	Connecticut	Universal Select	X	X
5	Nebraska	VFC Only	X	
6	New Jersey	VFC and Underinsured	X	
7	Minnesota	VFC and Underinsured	X	
8[5]	Delaware	VFC Only	X	
9	Florida	VFC Only	X	
10	Georgia	VFC and Underinsured	X	
	South Carolina			
51	Nevada	VFC Only	Mandated coverage for HPV (human papillomavirus)	

[1] **4:3:1:3:3:1 coverage rate** - 4-diptheria/tetanus/pertussis (DTaP), 3-polio, 1-measles/mumps/rubella (MMR), 3-Haemophilus influenza type B (Hib), 3-Hepatitis B, 1-varicella (chicken pox).

[2] **Vaccine Supply Policy Definitions:**

Universal: The immunization program supplies all routinely recommended pediatric vaccines to all public and private VFC enrolled providers to vaccinate all children.

Universal Select: The immunization program supplies all, but a few, routinely recommended pediatric vaccines to all public and private VFC enrolled providers to vaccinate all children.

VFC & Underinsured: The immunization program supplies all routinely recommended pediatric vaccines to all public and private VFC enrolled providers to vaccinate only VFC and underinsured children.

VFC & Underinsured Select: The immunization program supplies all but a few, routinely recommended pediatric vaccines to all public and private VFC enrolled providers to vaccinate only VFC and underinsured children.

VFC Only: The immunization program supplies all routinely recommended pediatric vaccines to private VFC enrolled providers to vaccinate VFC eligible children only.

[3] State first-dollar laws mandate coverage of immunizations by insurance plans without co-payment or deductibles. They apply to plans subject to state insurance regulations, but do not encompass Employee Retirement Income Security Act of 1974 (ERISA) self-funded plans.

[4] Participation in a federally sanctioned vaccine purchasing pool. The Centers for Disease Control and Prevention (CDC) will allow such an arrangement only if state general funds are allocate to purchase the vaccines. General funds in these states are obtained through a variety of financing mechanisms including a tax on health insurers. Vaccines purchased through the federal contract, however, cannot be resold.

[5] The District of Columbia was ranked #8 but was not included in this matrix of state rankings.

Nevada Immunization Program Vaccine and Operations Finance

The Nevada Immunization Program receives vaccine and operations financing from several sources. The main source of operations funding is the federal Immunization and Vaccines for Children Grant, CFDA# 93.268. The Immunization Program also received state General Fund appropriations during the 2008-2009 biennium to support the expansion of the statewide immunization information system (IIS). Vaccine funding is received through the federal Vaccines for Children (VFC) entitlement program, Public Health Services Act *Section 317, state* General Fund appropriations and the federal State Children's Health Insurance Program (S-CHIP) administered by the Department of Health Care Finance and Policy.

Vaccine Financing

The childhood and adult vaccines distributed by the Nevada State Immunization Program are financed through three sources:

Vaccines for Children (VFC) - An entitlement to ensure children age 18 and younger who are uninsured, Alaska Native or Native American, who are eligible for Medicaid, or who are underinsured and receive their vaccines in a Federally Qualified Health Center (FQHC) or Rural Health Center (RHC) have access to free vaccine. Funding is received in the form of vaccine dose allocations based on estimates of the VFC eligible population age 18 and younger. As this is an entitlement program, funding may be adjusted based on documented need. VFC vaccine funding is awarded on a federal fiscal year basis and is received in the form of direct federal assistance.

Public Health Service Act Section 317 Vaccine Funding (Section 317) – Discretionary vaccine funding, subject to congressional appropriation, for the purchase of childhood and adult vaccines. Prior to January 1, 2009, the Immunization Program utilized this funding source to provide certain vaccines to insured and underinsured children 18 and younger at no cost for the vaccine. Section 317 vaccine funding is awarded on a federal fiscal year basis, subject to congressional appropriations, and is received in the form of direct federal assistance.

State Children's Health Insurance Program (S-CHIP) – The Immunization Program purchases and distributes vaccines to immunize Nevada Check Up (NVCU) enrolled children age 18 and younger. The funding for these vaccine purchases comes from a combination of state General Fund appropriations and federal matching funds through the federal State Children's Health Insurance Program (S-CHIP) administered by the Department of Health Care Finance and Policy.

Operations Financing

Federal Immunization and Vaccines for Children Grant - The Immunization Program receives the majority of its financial support for operations through the federal Immunization and Vaccines for Children grant administered by the Centers for Disease Control & Prevention. The grant provides a combination of VFC and Section 317 funds in support of personnel and activities focused on the implementation and completion of specific grant goals and objectives. This is a five year non-competing grant funded on a calendar year basis. A small portion of these grant funds may be received in the form of direct federal assistance. The direct assistance is used to support General Services Administration (GSA) contracts and licensing agreements with the IIS vendor.

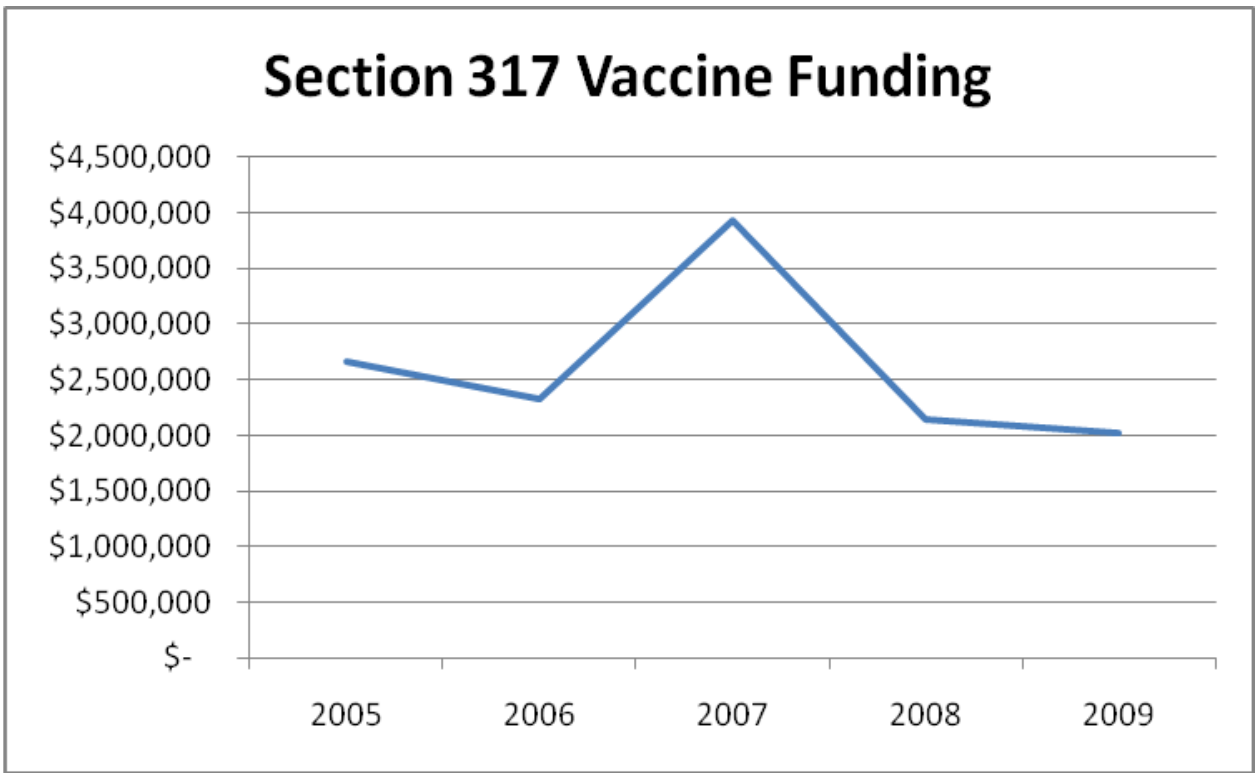
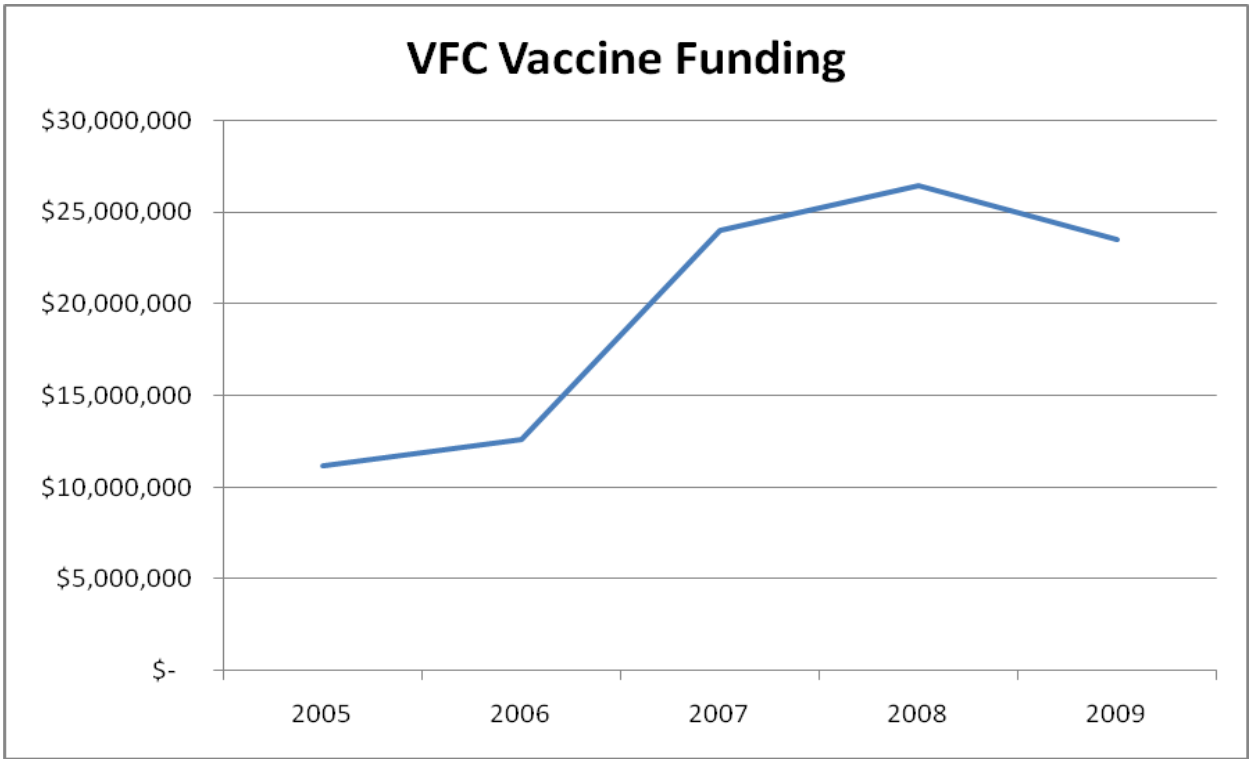


Chart Sources: VACMAN, CDC



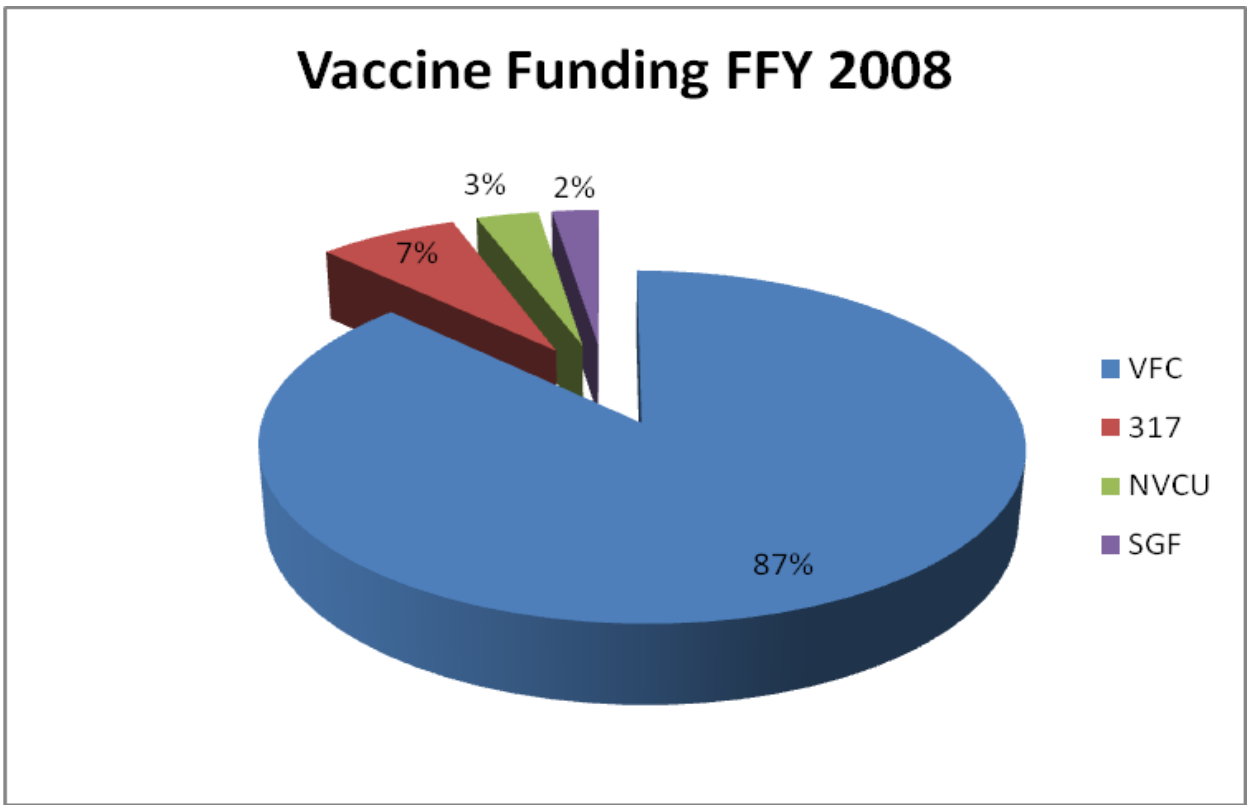
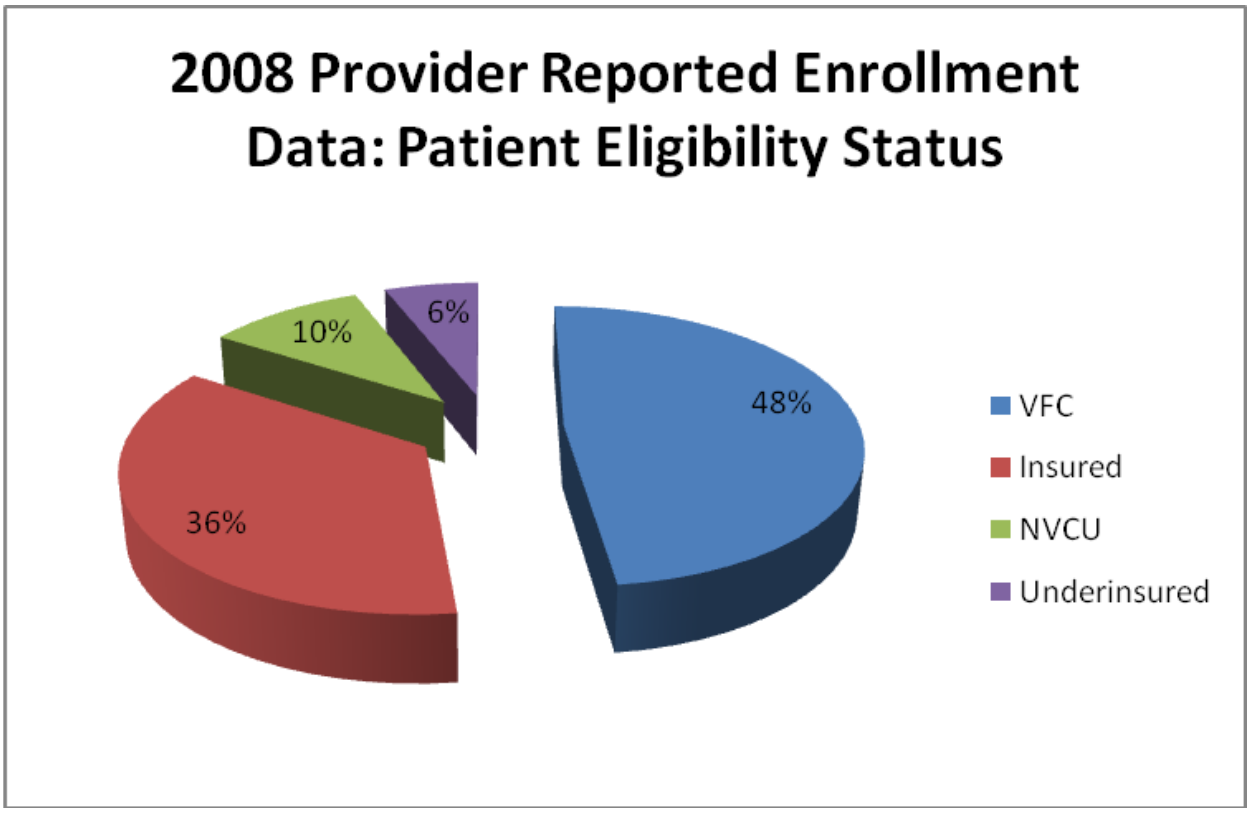
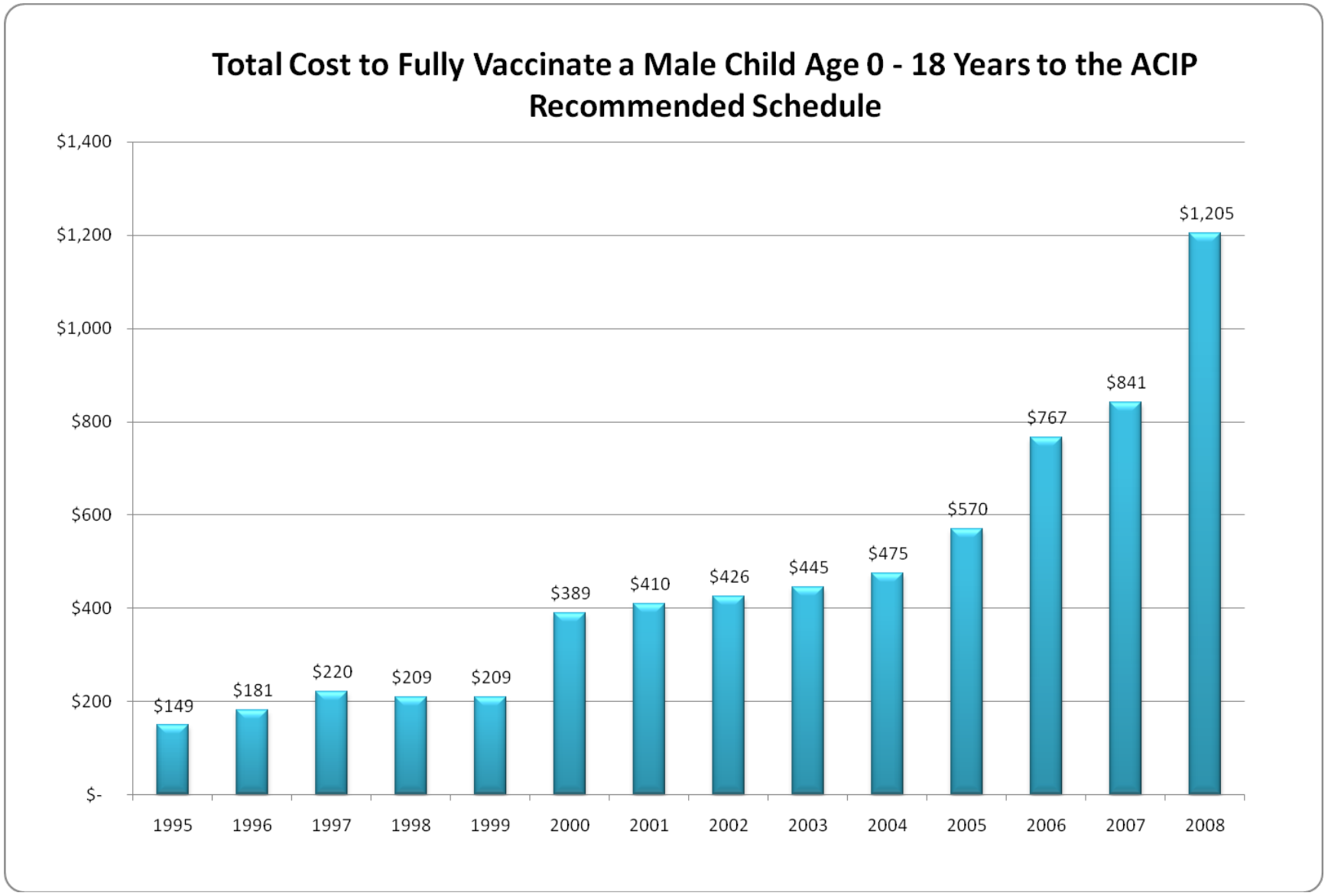
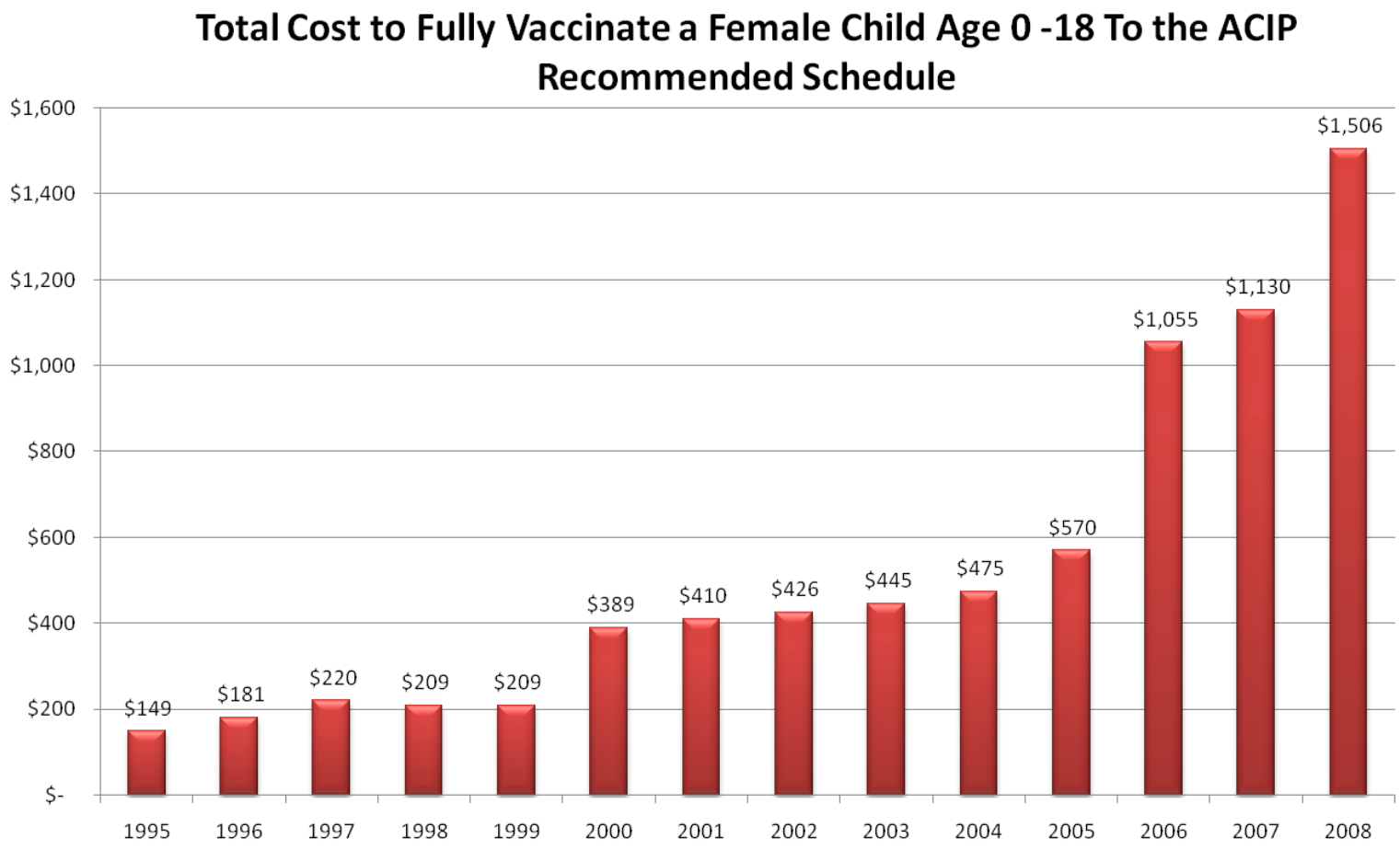


Chart Sources: VACMAN, CDC





Source: VACMAN, CDC



Source: VACMAN, CDC

The Policy Change to VFC Only: On January 1, 2009 the Nevada State Health Division changed its vaccine supply policy from Universal Select to VFC (Vaccines for Children Program) Only. The primary effect of this change was that the state no longer provides free VFC vaccine to all children, regardless of insurance status. Privately insured children are no longer eligible for VFC vaccine, but there is no change in the eligibility of children in the following groups:

- Medicaid/Medicaid Eligible
- Uninsured
- Native American/Alaskan Native
- Underinsured (have health insurance that does not include vaccines and must receive VFC only vaccines at a FQHC or local health department).

Reasons for the Change to VFC Only:

- Increase in number of vaccines and cost as recommended by ACIP
- Decrease in available federal resources (317 discretionary funding)
- Growing Population

Issues among stakeholders and the provider community:

- Private providers must purchase vaccine to provide to insured children; the expense to purchase this inventory is difficult for some small practices
- Perception that vaccine supply policy impacts immunization coverage rates.
- Fear that transition to VFC only will increase vaccine preventable disease. Research does not support this concept.

Strategies used by other states to Improve Immunization Rates:

- Enactment of mandatory first dollar coverage laws
- Voluntary coverage from ERISA plans for immunizations

First Dollar Coverage of Immunizations

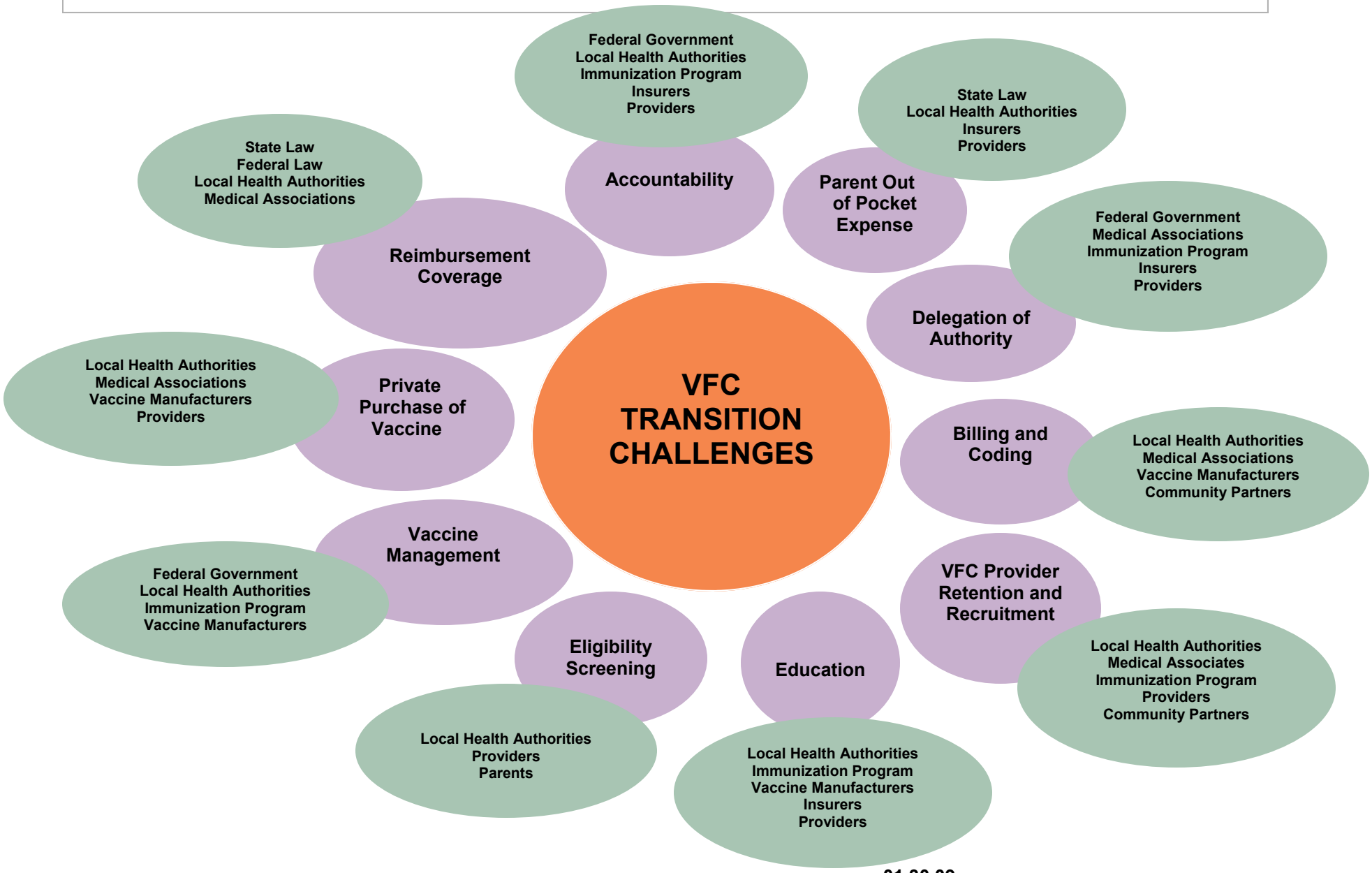
State first-dollar laws mandate coverage of immunizations by insurance plans without co-payment or deductibles. They apply to plans subject to state insurance regulations, but do not encompass Employee Retirement Income Security Act of 1974 (ERISA) plans. ERISA was enacted by Congress to remedy pension plan fraud and mismanagement, but it applies to other types of private employer- or union-sponsored "welfare benefit programs," including health coverage. Although states can generally regulate in areas touched by federal law as long as state law does not directly conflict with federal law, ERISA contains a broad preemption clause providing the ERISA supersedes state laws that "relate to any employee benefit plan." This preemption provision contains several exceptions, including one for state laws regulating insurance. But ERISA also explicitly provides that states may not consider an employer-sponsored plan to be an insurer. Consequently, states cannot directly regulate employer-sponsored health plans, but can regulate health insurers that sell products to employer plans.

As of January 2009, 32 states and the District of Columbia utilized insurance laws that, to some extent, mandated immunization coverage: Arkansas, California, Colorado, Connecticut, Delaware, District of Columbia, Florida, Georgia, Hawaii, Illinois, Kansas, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Pennsylvania, Rhode Island, Texas, Virginia, West Virginia, and Wisconsin.

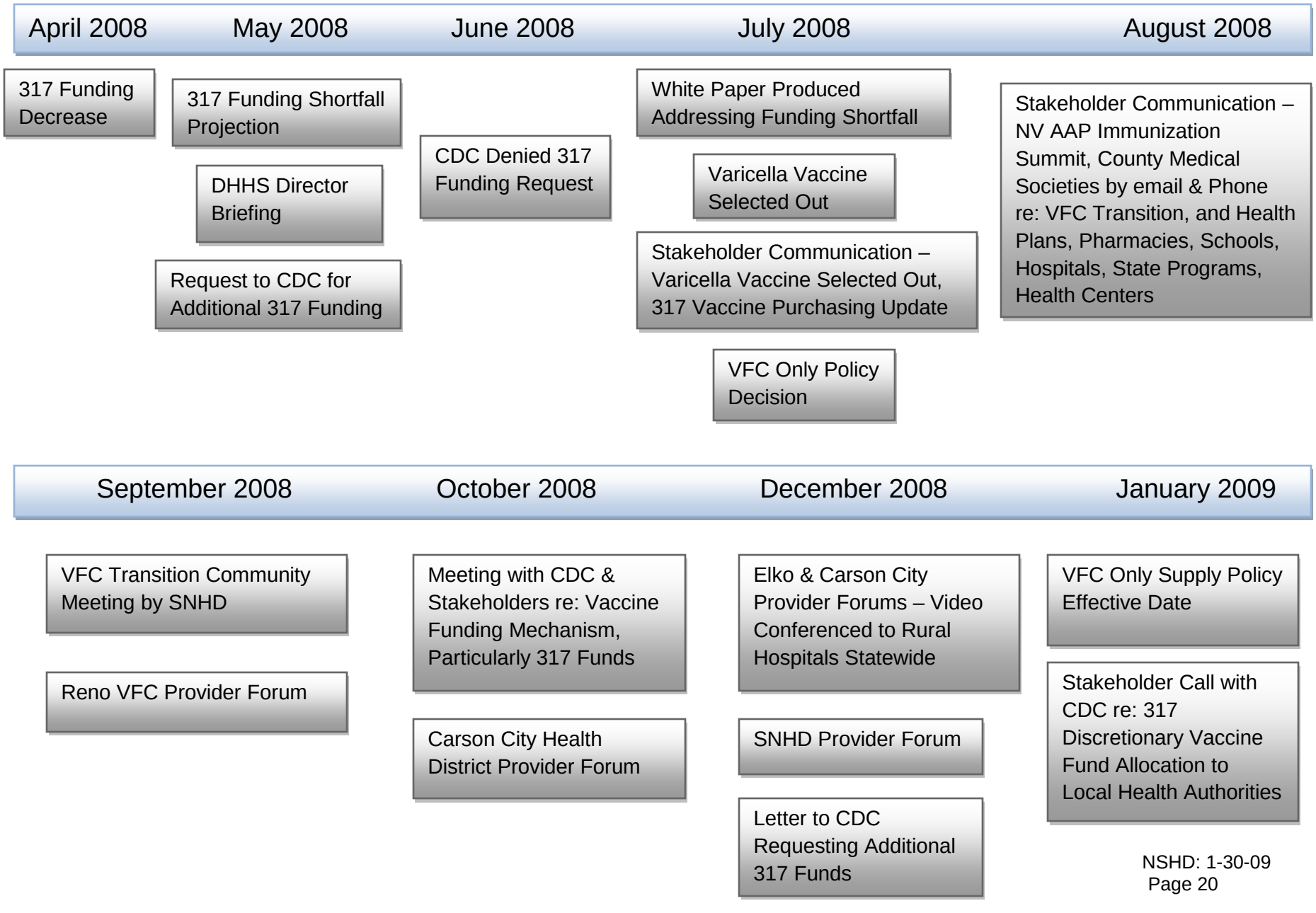
Although Nevada has laws mandating coverage of certain diseases and conditions such as diabetes, it does not appear that these laws require coverage for childhood vaccines. Adoption of first-dollar coverage laws by states like Nevada may help remove financial barriers to immunization for some families, but ERISA exemptions mean that such laws cannot eliminate problems of underinsurance. This is particularly true in Nevada, where it is estimated that a significant proportion of the insured population is covered by and ERISA exempt plan.

Vaccines for Children Transition Challenges

State of Nevada Health Division



Nevada Vaccine Supply Policy Transition Timeline
As of January 30, 2009



Chronology of Nevada Vaccine Supply Program
As of January 30, 2009

Date	Event	Comments
1994	Vaccines for Children Program becomes operational. Planning grant received in Nevada. Immunization Program utilized VFC and 317 Funding to provide immunizations universally; regardless of insurance status.	Created by the Omnibus Budget Reconciliation Act of 1993 as a new entitlement program to be a required part of each state's Medicaid plan. The program was officially implemented in October 1994. **Universal**: The immunization program supplies all routinely recommended pediatric vaccines to all public and private VFC enrolled providers to vaccinate all children.
2000	Prevnar (a vaccination for pneumonia PCV-7) was introduced and added to ACIP recommended list. Prevnar was first vaccine that was "selected out" (due to high cost per dose) and only provided to VFC and Nevada Check Up children. As a result the state was now considered Universal Select.	**Universal Select**: The immunization program supplies all, but a few, routinely recommended pediatric vaccines to all public and private VFC enrolled providers to vaccinate all children.
2000-2007	As new, more expensive vaccines were introduced to the market they were "selected out" to be administered to VFC and Nevada Check Up children only.	From 2000 – 2007 these vaccines were selected out as they were introduced to the market: DTaP + HepB + IPV Hep A HPV MCV4 PCV-7 Rotavirus
May 5, 2008	DHHS Director is briefed by Richard Whitley and Doug Banghart on decrease in 317 funding and recommendation that to meet short-term funding loss that Varicella be selected out and that the state move to VFC Only as of January 1, 2009.	
May 15, 2008	Formal request to CDC for additional 317 funding.	
June 30, 2008	Information received during phone call with CDC that request for additional CDC 317 funding was denied.	
July 1, 2008	White paper produced on policy alternatives and recommendations addressing funding shortfall.	

Chronology of Nevada Vaccine Supply Program
As of January 30, 2009

Date	Event	Comments
July 1-15, 2008	Developed message for stakeholders.	Information specific to providers, health plans, pharmaceuticals, schools, parents, employees.
July 3, 2008	Varicella vaccine is added to "selected out" list because of decrease in 317 funding.	
July 24, 2008	First 317 Vaccine Purchasing update to Richard Whitley.	This report shows the expended vaccine funds.
August 21-22, 2008	Presentation at the Nevada Chapter of AAP Immunization Summit	The Immunization Summit was facilitated by Elizabeth Sobczak, National AAP
August 28, 2008	County Medical Societies notified by email, phone messages with VFC transition information to assist in dissemination.	
August 28-September 4, 2008	Health Plans, pharmaceuticals, school nurses, hospitals, state programs, health centers,	Information faxed, mailed, e-mailed, HAN, Press release. Coalitions assisted in getting message out to public.
Aug 28, 2008	Executive Summary: Vaccine Purchasing Policy Document.	Website posting, posted talking points, white paper, contact information.
September 9, 2008	Attended Health Strategies Coalition meeting with major self funded plan administrators.	Spoke on VFC transition and impact to health plans and their participants.
September 11, 2008	Teleconference with CDC, Mimi Larzelere and Gary Urquhart.	Requested Technical assistance for Gap analysis, WebIZ enhancement, and PHA. Granted request.
September 17, 2008	VFC Transition Community Meeting hosted by SNHD.	State IZ program present along with SNHD and Culinary Health Fund representative and Kelson representative, pharmaceutical representation.
September 23, 2008	NSMA letter to Gov. Gibbons received by the State requesting of CDC answers to five issues.	September 30, 2008 letter by email arrives at State office.
September 23, 2008	VFC Provider forum in Reno.	>35 in attendance
September 26, 2008	Letter responding to Dr. Colletti and his concern for reimbursement for private providers.	Met with Dr. Colletti at a Provider forum shortly after his letter.
October 2, 2008	CDC Nancy Fasano, Program Operations Branch Chief, Denise Rodgers, Deputy Chief, Mimi Larzelere, Project Officer, National Center for Immunization and respiratory Disease, Melissa Ely-Moore, Public Health Advisor, Nancy Oliver, Centers for Disease Control and Prevention. • Spoke on Vaccine funding mechanism, particularly 317 funds.	Notes from meeting attached. SNHD, NSMA were not on teleconference call, but were sent notes.

Chronology of Nevada Vaccine Supply Program
As of January 30, 2009

Date	Event	Comments
October 8, 2008	Carson City Health District provider forum.	
October 14, 2008	Attended Nevada Healthcare Forum at United Health Services.	
November 4, 2008	Responded to request from Senator Reid's office (Carolyn Gluck) on information on 317 funding.	Explained 317 funding and cutbacks.
November 6, 2008	Attended Medical Director's meeting for Southern Nevada.	Spoke on 317 funding and VFC transition, attendees agreed to draft letter requesting funding from legislature.
November 12, 2008	AAP NV Chapter meeting to discuss VFC transition and delegation of Authority.	Renee Jarrett was in attendance and approved of delegation of authority.
November 16-20, 2008	CDC grantee meeting.	Met with TA from September 11, 2008 teleconference. Tentative Agenda scheduled.
December 1-2; December 9, 2008	Provider forums conducted in Elko and Carson City and videoconferenced to rural hospitals statewide.	Hosted by UNSOM.
December 9, 2008	Attended Clark County Chapter of AAP; addressed provider questions as posed on December 8, 2008 by Dr. Lisa Glasser.	Discussed delegation of authority.
December 10, 2008	Presented at the Southern Nevada Health District Provider Forum.	Hosted by SNHD.
December 16, 2008	Presented at the State Board of Health Meeting	
December 23, 2008	Submitted formal request to CDC for sufficient funding to allow the State to remain Universal Select through 6-30-09	
January 1, 2009	VFC Only Supply Policy Effective Date.	
January 16, 2009	Teleconference with CDC and subgrantees regarding use of residual 317 discretionary funds. Subgrantees will submit proposals for their share of the population-based allocation of $221,000.	

Executive Summary: Vaccine Supply Policy Document

Immunizations are a proven, critical strategy in reducing the incidence of vaccine preventable disease. The immunization coverage rate for Nevada's children has been consistently low in recent years when compared to the national average. In 2007, for example, the National Immunization Survey ranked Nevada as 50th in the nation for the primary coverage indicator of 4:3:1:3:3:1[1] for children 19-35 months of age.

Historical Context:

States rely heavily on federal assistance to maintain the vaccine delivery infrastructure and receive federal dollars from two funding sources: the **VFC (Vaccines for Children) Program** and **Section 317** of the US Public Health Service Act. Unlike VFC, which is an entitlement program, 317 dollars are subject to Congressional approval. The Section 317 Program provides grants to states for both vaccine purchase and infrastructure. The national immunization system has historically been based on an assumption of shared federal and state responsibility for immunization financing. Over the last fifteen years, however, the state role in financing immunization has waned. Nevada only receives state general fund dollars to match with federal dollars to purchase vaccines for S-CHIP (State Children's Health Insurance Program) enrolled children.

Nevada provides these vaccines purchased with state/federal dollars to S-CHIP enrolled children and does not have any other source, other than the aforementioned federal funds, for vaccine purchase. In 1999, Nevada elected to become what is known as a ***universal select purchase state***. Under this financing mechanism the immunization program supplies all, but a few, routinely recommended pediatric vaccines to all public and private VFC enrolled providers.

Current Situation:

In mid-2008, the Nevada State Immunization Program was notified by the Centers for Disease Control and Prevention (CDC) that federal discretionary funding would decrease by 22% (appx. $500,000). This funding was historically used to provide the selected vaccines to all children regardless of VFC eligibility. As the state program was faced with a projected 317 funding depletion by July 2008 the decision was made to move the Varicella (chicken pox) vaccine from the select list to VFC only. Prior to making any changes, policy and fiscal alternatives for vaccine funding were investigated and a recommendation made that the state move all vaccines to VFC only effective January 1, 2009. In order to elicit input and support for this change the Nevada State Health Division (NSHD) convened several core stakeholder groups in July 2008. Participants included healthcare providers, health plans, public health agencies and the immunization coalitions. Additionally, a communications plan was also developed by NSHD that provided the various stakeholder groups with time sensitive, critical information about the transition to VFC and Nevada Check Up only.

[1] 4-diptheria/tetanus/pertussis (DTaP), 3-polio, 1-measles/mumps/rubella (MMR), 3-Haemophilus influenza type B (Hib), 3-Hepatitis B, 1-varicella (chicken pox).

Future Strategies:

As of January 1, 2009 NSHD transitioned to VFC and Nevada Check Up only as its vaccine supply policy. This financing mechanism utilizes a combination of VFC and state funds to purchase and distribute routinely recommended pediatric vaccines to public and private VFC enrolled providers. The primary shift under this plan is that fully insured children are not eligible to receive state-supplied vaccine and underinsured children are only eligible to receive state-supplied vaccine from a Federally Qualified Health Center (FQHC) or a Rural Health Center (RHC).

Department of Health and Human Services
Health Division
Vaccine Supply Policy Document

This paper has been developed by the Department of Health and Human Services, Health Division, Bureau of Community Health[2], State Immunization Program to present policy alternatives and recommendations to address a funding shortfall in the childhood vaccine purchasing program. It is a result of a meeting held on May 5, 2008 in which Director Willden was briefed by Richard Whitley, Health Division Administrator and Doug Banghart, Immunization Program Manager regarding the impact of a 22% reduction in the federal discretionary vaccine funding.

The paper provides necessary background information on Nevada's childhood immunization rates, summarizes issues that contribute to successful immunization outcomes, defines the problem, provides four policy alternatives, discusses the possible impact of two of the alternatives on commercial health insurers and health plans, makes recommendations and proposes next steps.

As more vaccines are added to the childhood vaccination schedule, there are increased costs; however there has been a decrease in available federal resources to vaccinate Nevada's children. Federal Vaccines for Children (VFC) entitlement funding from the CDC has attempted to provide resources in anticipation of this trend, while the Federal Section 317 discretionary funding from the CDC has fallen. In light of these issues, it is no longer possible to maintain the program as its current level without either increased funding from the state or implementing a change in program policy. The latter is the recommendation of the Health Division.

Immunization Rates

The Healthy People 2010 goal for the United States is to have 80% of children who are two years of age properly immunized. Each year, the Centers for Disease Control and Prevention (CDC) collects data using the National Immunization Survey, (NIS) from every state to measure this rate. There are two main vaccine series that are used to determine immunization rates – one is based on a five-dose series, the other a six-dose series. The six-dose series is the federal government standard to measure performance; the latest survey was performed in 2007 and surveyed children between 19 and 35 months of age.

The 4:3:1:3:3 series (5-dose series) consists of the following doses: 4- diphtheria/tetanus/pertussis (DTaP), 3- polio, 1- measles/mumps/rubella (MMR) 3- Haemophilus influenza type B (Hib), and 3- Hepatitis B vaccines. In 2006, 4:3:1:3:3 coverage levels for the U. S. were 80.6% (±1.0%) while the rate for Nevada was 64.7% (±7.3%). Nevada's coverage levels for this series decreased 2.0% (±9.5%) from the 2005 estimate of 66.7% (±6.0%); however this decrease is not statistically significant.

The 4:3:1:3:3:1 series (6-dose series) consists of the doses provided above as well as the addition of 1- Varicella (chickenpox) vaccine. This series represents the core vaccines administered to children by the age of two and is the standard by which the federal government

[2] Bureau of Community Health is now known as the Bureau of Child, Family and Community Wellness.

measures performance. In 2006, this 6-dose series coverage level for the U.S. was 77.0% (±1.0%) while the rate for Nevada was 59.5% (±7.4%). *Nevada's coverage level for this series ranks it as the lowest state for this series coverage level*. Nevada's overall coverage rate for the 6-dose series has decreased 3.7% (±9.6%) from the 2005 estimate of 63.2% (±6.1%). Several factors influence this decline including the lack of portability of immunization records, the transient nature of the population and the provision of the immunization protocols by providers.

Vaccine for Children (VFC) and VFC Eligibility

Several states perform at or above the goals established by the Healthy People 2010 initiative. There are a variety of implementation strategies utilized to ensure success that differ from Nevada's current policies of vaccine coverage. To clarify the supply policies see the definitions embedded below the table. Note that the Vaccines for Children (VFC) program is the federal mandate that assures a payer for all children without insurance coverage. It was launched as part of national health care reform efforts during the Clinton Administration to ensure that children aged 18 and younger who are uninsured, Alaska Native or Native American, or children who are eligible for Medicaid, or who are underinsured and receive their vaccines in a federally qualified health center (FQHC) have access to free vaccines.

VFC Enrolled Providers: Immunization providers enrolled with the State Immunization Program who receive and administer vaccines financed by the federal VFC program.

The table below summarizes the types of Immunization Programs in place in the states with immunization rates that meet or exceed the Healthy People 2010 goal.

Table 1: States Meeting Healthy People 2010 Goal by Childhood Vaccines Supply Policy, 2006

Universal	Universal Select	VFC and Underinsured	VFC and Underinsured Select	VFC Only
New Hampshire	Connecticut	Florida	Michigan	Delaware
	Hawaii	Georgia		Wisconsin
	Massachusetts	Maryland		
	North Carolina	New York		

Source: http://www.dcd.gov/vaccines/programs/vfc/projects/data/vacc-supply-public-2006.htm

Definitions:

1. **Universal**: The immunization program supplies all routinely recommended pediatric vaccines to all public and private VFC enrolled providers to vaccinate all children.
2. **Universal Select**: The immunization program supplies all, but a few, routinely recommended pediatric vaccines to all public and private VFC enrolled providers to vaccinate all children.
3. **VFC & Underinsured**: The immunization program supplies all routinely recommended pediatric vaccines to all public and private VFC enrolled providers to vaccinate only VFC and underinsured children.
4. **VFC & Underinsured Select**: The immunization program supplies all but a few, routinely recommended pediatric vaccines to all public and private VFC enrolled providers to vaccinate only VFC and underinsured children.

5. **VFC Only**: The immunization program supplies all routinely recommended pediatric vaccines to private VFC enrolled providers to vaccinate VFC eligible children only.

Factors Impacting Immunization Outcomes

Results from a recent study[3] found that states that purchase and provide vaccine for every child, even those with private insurance (Universal Purchasing states), do not necessarily have higher rates of vaccination than others. However, one half of the 14 states that have some form of Universal Purchasing program ranked in the top quartile for immunization coverage over a period of five years, while less than 30 percent of states with the most limited free vaccine program ranked in the same group. The vaccine purchasing mechanism alone cannot explain differences in individual state's performance; however, it could be one of multiple components that support the achievement of higher immunization rates in some states.

Some of the other findings for the study that are relevant to Nevada include:

- Immunization registries were at different points of development across exemplary (consistently high rates) states; consequently, their impact on immunization rates in these states was unknown at the time of the study.
- The positive performance of Massachusetts, New Hampshire, Rhode Island, and Vermont may be explained by variables other than the purchasing plan, such as limited small area variation among providers in four contiguous New England states.
- Other factors impacting immunization rates may include the State Immunization Program infrastructure, Managed Care penetration, pediatrician supply, practice variation, civic culture, immigration, as well as others.
- The study also found that provider participation and education was related to an increase in rates; emphasis on parental participation and education was not found to be related to an increase in rates.

Massachusetts is a state, which has one of the highest immunization rates over the past five years, and is a Universal Select state. They have successfully negotiated a method by which its insurance companies pay for vaccines. The state has an agreement with the insurance companies that includes taxing them for each underwritten policy and places that tax into the State General Fund. The State then supplies money out of the State General Fund budget to supply the Universal vaccines. The State can purchase the vaccines at a significantly reduced cost than the insurance companies, thereby leveraging more vaccine resources.

In addition to the benefits associated with this financing plan, the State reports less confusion among their providers as most children in these states receive their immunizations in their medical home, or with their primary care provider. Providers appreciate the simplicity of this program because they do not have to screen for eligibility; all children get vaccinated.

Other factors cited by the states with the highest immunization rates were:

- Ease of administration for providers
- Immunization outreach at the local level

[3] Source: "Financing Childhood Immunizations Across the Nation: A Follow-Up Report to the Immunize Kansas Kids Steering Committee," January 2007, Kansas Health Institute.

- Active, dedicated providers
- Strong partnerships between state agencies, clinics and provider organizations
- Availability of immunization information on Web sites
- Network of public immunization clinics
- Enforcement of immunization policies and guidelines
- Parental education
- Provider assessments
- Immunization registry
- Immunization customer service
- Health insurance coverage for vaccines including first dollar coverage

Nevada's Problem

The current State Immunization Program utilizes three sources of funding to purchase and distribute vaccine to public and private service providers. Nevada's vaccine purchasing model is known as the Universal Select Policy. The three sources of funding are State General Funds, federal VFC and federal Public Health Service Act Section 317. Each is discussed below.

Nevada Check Up – The Immunization Program purchases and distributes vaccines to immunize Nevada Check Up enrolled children. The funding for these vaccine purchases comes from a combination of state general fund and federal matching funds through the federal State Children's Health Insurance Program (S-CHIP) administered by Medicaid. The state fiscal year 2008 vaccine budget for this program is $2,691,315 which includes $866,474 of State General Fund and $1,824,841 in Medicaid. The State General Fund is earmarked for the state match portion of the purchase and distribution of vaccine for Nevada Check Up enrolled children. For federal fiscal year 2008, State General Fund and federal matching funds have purchased 47,585 doses of vaccine with a total value of $1,431,102.85; $474,444.06 State General Funds; $956,759.75 Federal Matching Funds. This accounts for approximately 5% of the total vaccine doses distributed by the immunization program.

Vaccines for Children (VFC) - Federal VFC funding is an entitlement used to vaccinate eligible children including those on Medicaid or eligible for Medicaid, those who are uninsured or underinsured and American Indian and Alaska Natives. In federal fiscal year 2008, the State Immunization Program received VFC vaccine allocations totaling 792,469 doses with a total value of $26,526,616. This accounts for approximately 84% of the total vaccine doses distributed by the Immunization program.

Public Health Service Act Section 317 Vaccine Funding - Federal Section 317 funding has historically been used to cover those children who do not meet VFC eligibility criteria or who were not enrolled in Nevada Check Up; this is considered the "Universal" part of Universal Select. In federal fiscal year 2008, Nevada received $2,146,693 in Section 317 vaccine funding. This represents a reduction of 22% ($500,000) below the prior federal fiscal year amount. With these funds the State Immunization Program has purchased or allocated funds for the purchase of 100,617 doses of vaccine. This accounts for approximately 11% of the total vaccine doses distributed by the Immunization program.

As more vaccines are added to the childhood vaccination schedule, there are increased costs; however there has been a decrease in available federal resources to vaccinate Nevada's children. Federal VFC entitlement funding from the CDC has attempted to provide resources in anticipation of this trend, while federal Section 317 discretionary funding from the CDC has

fallen. In light of these issues, it is no longer possible to maintain the program as its current level without either increased funding from the state or implementing a change in program policy. The latter is the recommendation of the Health Division.

Based on the funding reduction and historical vaccine usage patterns, federal Section 317 funds will be depleted in July of 2008, although the federal fiscal year does not end until October 2008. In May 2008 staff requested additional VFC allocations, as well as an increase in the Section 317 funding based on any available unspent Section 317 dollars from other states. This request has been denied by the CDC Project Officer.

It is important for the VFC program to continue to fund the Medicaid and Nevada Check Up populations, as the purchasing benefits are significantly enhanced when the State Immunization Program uses the federal contracted rate to purchase vaccines. This rate, in general, is significantly lower, as can be seen in Table 1 below, than rates available from other sources. If this initiative is not continued it may have a negative impact on the Division of Health Care Financing and Policy's/Medicaid's budget.

Table 2: Sample Vaccine Costs, Federal Pricing versus Private Sector Costs, May 2008

	Cost		Difference	
Vaccine*	**CDC**	**Private**	**Dollar Savings**	**Percent Savings**
DTaP	$12.65	$21.40	$8.75	40.89%
MMR	$18.26	$46.54	$28.28	60.76%
Hep B	$9.50	$21.37	$11.87	55.55%

Source: CDC Vaccine Price List, May 16, 2008.
*Note: Per 10 pack - 1 dose vials.

Policy Decision

The Department of Health and Human Services, Health Division, Bureau of Child, Family and Community Wellness, Immunization Program moved to implement the policy of providing vaccines for VFC eligible and Nevada Check Up enrolled children only, effective January 1, 2009.

- Explanation of Policy Change - The Immunization Program provides all routinely recommended pediatric vaccines to all public and private VFC enrolled providers to vaccinate only VFC eligible and Nevada Check Up enrolled children.

- How the Policy Change Works - Through a combination of VFC and state funds, the Immunization Program purchases and distributes routinely recommended pediatric vaccines to public and private VFC enrolled providers. Vaccines supplied to VFC providers are administered only to VFC eligible and Nevada Check Up enrolled children. Fully insured children cannot be vaccinated using state-supplied vaccine under this policy change. Underinsured children are eligible to receive state-supplied vaccine from a FQHC or a RHC or a provider to whom authority has been delegated, subject to CDC approval. Any future Section 317 vaccine funding received could be used to purchase pediatric or adult vaccines at the discretion of the Immunization Program.

- Cost to the State
  i) The Immunization Program receives State General Fund dollars to match with federal Medicaid dollars to purchase vaccines for Nevada Check Up eligible children. In SFY 2008, the total cost in State General Funds was approximately $474,444, which represents the state match portion of the vaccines purchases for Nevada Check Up enrolled children. For SFY 2009 the Immunization Program has State General Fund budget authority up to $934,000 for the state match portion of vaccine purchases for Nevada Check Up enrolled children. The federal match provides budget authority of $1,872,323.
  ii) *There would be no additional cost to the State*.

- Pros and Cons
  i) Pros
    (1) This model would be the least confusing for providers as the eligibility criteria is clearly defined as VFC eligible and Nevada Check Up enrolled children only.
    (2) The State will likely see an increase in the use of combination vaccines reducing the number of shots required which will remove one barrier to increasing immunization rates.
    (3) Currently, the FQHCs in Nevada have delegated authority to the public health districts to vaccinate underinsured children. With CDC approval, the FQHCs may be able to delegate authority to private providers as well. This would increase the amount of VFC funded vaccine allocated to the state thereby allowing underinsured children to remain in their medical homes for all routinely recommended pediatric vaccines.
    (4) This will give the Immunization Program the opportunity to use Section 317 vaccine funding to address outbreaks of vaccine preventable diseases, purchase adult vaccines, and provide seasonal flu vaccine to more of the state population.
  ii) Cons
    (1) Providers of vaccine services will likely experience a financial impact. Providers may, if they choose, privately purchase a complete stock of vaccine for their insured clients, vaccinate these clients, and then submit reimbursement claims to the commercial insurers, including health plans. Providers will have an increased reliance on the commercial insurers for adequate reimbursement to cover the cost of privately purchased vaccine. Current providers of vaccination services may elect to close their practice to providing vaccinations and these children would have to be referred to the local health districts or community health nursing clinics in rural areas for their immunizations.
    (2) Health insurers, including self funded plans, may take issue with this change because it will shift the cost from the state to the insurers.
    (3) The underinsured children could only receive state provided vaccines at a FQHC or RHC.
    (4) There may be a reduction in the number of VFC enrolled providers, as many participating providers do not treat VFC or Nevada Check Up eligible/enrolled children.
    (5) State-supplied vaccines would not be available to vaccinate insured children.

- Likely Impact on Nevada's Immunization Rates
  i) Through an assessment of private enrolled providers, the Immunization Program is discovering that private providers are reluctant to privately purchase vaccines, choosing instead to refer patients to Public Health agencies for their vaccines. The

immediate impact of this model would be to decrease immunization rates in insured individuals who would otherwise have received at least some vaccine free under the current Universal Select model.

ii) The long-term impact will be determined by provider and coalition activities and proposed legislation designed to increase health care insurer participation in covering the cost of vaccines. With the right combination of vaccine funding, provider involvement, coalition activities, and first-dollar coverage legislation, the Immunization Program believes the long-term impact could be to increase overall immunization rates.

Possible Impact on Commercial Health Insurance Companies and Health Plans of Implementing a VFC/Nevada Check Up Only Vaccine Distribution Policy

Commercial health insurance companies and health plans, including Employee Retirement Income Security Act (ERISA) plans, typically do provide vaccination as a benefit but historically have not had to provide reimbursement for many of the vaccines. With the cessation of this federal subsidization, the health plans will experience some financial impact. An analysis shows that the major health plans in Nevada would increase their vaccine reimbursements by approximately 68% - 73% to cover all the childhood and adolescent vaccines for their enrollees. Similar information is not readily available for commercial health insurers.

Table 3: Percent Increase in Reimbursement Costs for Selected Health Plans

Health Plan	Reimbursement Costs Universal Select (Current Policy)	Reimbursement Costs VFC Only Policy	Percent Increase
NevadaCare	$ 246,675	$ 420,673	71%
PacifiCare	$ 558,759	$ 964,290	73%
Hometown Health	$ 494,157	$ 829,950	68%
Aetna	$ 3,253,220	$ 5,466,300	68%

Analysis calculates the private sector cost to vaccinate children enrolled in the health plan according to the harmonized vaccination schedule of the Advisory Committee on Immunization Practices (ACIP).

Though the reimbursement costs would increase, the overall corporate impact is negligible. Financial statements retrieved from the Securities and Exchange Commission (SEC) on publicly traded corporations show the following net income in Table 4.

Table 4: Corporate Earnings of Various Health Plans, CY 2007

Corporation	Operating Costs	Net Income
UnitedHealth Group*	$67,582,000,000	$4,654,000,000
Sierra Health Services▲	$1,524,733,000	$94,052,000
Aetna▲	$17,294,000,000	$1,749,000,000

*Subsidiary health plans within UnitedHealth Group during 2007 included PacifiCare.
▲Health care operating costs only.

The Health Division conducted a survey of the ten (10) largest health care insurers operating in Nevada. Of the ten surveyed, nine (9) were managed care plans and one (1) was a self-funded plan (Culinary/Hereiu Fund). All of the managed care plans indicated that all routinely recommended pediatric vaccines are included in their formularies and health care providers may receive reimbursement for these vaccines. The reimbursement rates for the vaccines are

determined by a number of factors: 1) Plan policy chosen by the employers; 2) Member copayments; 3) Contracts with the health care providers – the most important of all these factors in determining reimbursement rates. The self-funded plan, included in this survey, indicated that it reimburses for all routinely recommended pediatric vaccines currently NOT provided universally by the Nevada State Immunization Program. To the Heath Division's knowledge, this self-funded plan does not negotiate reimbursement rates with health care providers, instead choosing to set those rates based on market analyses.

Implementation Update

The State Health Division, Bureau of Child, Family and Community Wellness, Immunization Program developed a communication and project plan that included a work group of community partners, commercial health insurers and health plans, public and private immunization providers, and other key stakeholders. The workgroup convened starting in August 2008, discussion on policy implementation and various issues related to policy change occurred.

Convening in July 2008, teleconference meetings with Health Division Administration and County Public Health Officers and Public Information Officers began on a weekly basis. Conversation around the issues surrounding the policy implementation such as retention of providers, fiscal impacts and public awareness to providers and public took place. Weekly participants grew to include health plans and insurers, providers, immunization staff at the state and county level, and pharmaceutical representatives. When it was determined that demand warranted it was decided to have two teleconferences per week. The first teleconference included Health Division Administration and County Health Officers with Public Information Officers and the other teleconference included all other interested stakeholders. Weekly projections of discretionary 317 Vaccine funding availability were presented to participants showing the shortfall if the Immunization Program continued a Universal Select policy. In anticipation of a policy change, the Immunization Program contacted the Centers for Disease Control and Prevention (CDC), Immunization Branch in May 2008 to request additional 317 Vaccine funding. In June 2008, the request for additional funds was denied.

After discussion with teleconference stakeholders on the detailed message information regarding the vaccine supply policy change was sent to all providers in the state, including health plans and insurers, schools, medical societies, health centers, and pharmaceutical companies. Information was faxed, placed on the State Immunization Program website, sent through the Health Area Network, and mailed to all stakeholders. Press releases were completed and the immunization coalitions posted and electronically emailed contacts. In addition, opportunities for interviews were given to all media representatives.

Presentations on the Vaccine for Children Policy implementation and changes were given throughout the state beginning in September 2008. At least 12 formal presentations were made during provider forums which discussed and addressed the issues around the policy implementation; all provider forums were well attended.

All requests for research and education were met in a timely manner. The Immunization Program provided research on the top ranking states in immunization rates by vaccine policy as requested; the report showed vaccine policy was not a primary determinant on immunization rate. Upon request the Immunization Program researched policy language used by other states on immunization coverage. The Immunization Program had requested early in our conversations regarding proposed policy change assistance from CDC. The CDC has agreed

to provide technical assistance in a gap analysis to determine who and where the under vaccinated children can be found, this assistance begins in March 2009.

Delegation of Authority was implemented as a means to serve the underinsured children in the state and to maintain vaccines in their medical homes without a vaccine cost to either the provider or the families. Implemented in January 2009 through provider volunteer participation, over 120 providers have enrolled in the Delegation of Authority Program as of January 31, 2009. Only VFC enrolled providers were offered Delegation of Authority during the pilot phase of the project that is scheduled to end in June 2009. Although some stakeholders voiced concern that there would be a drop in the number of providers privately purchasing vaccines only a small number of providers have opted out of the Delegation of Authority Program. In addition, preliminary reports from pharmaceutical representatives state the number of providers that privately purchase vaccine is increasing. The chart below shows the number of providers declining delegation of authority and reasons for declination.

Providers declining reenrollment for 2009

Location	Reasons	Number
Clark	Practice not serving VFC eligible patients	2
	No reason given	3
	Transferred business	1
Washoe	Practice not serving VFC eligible patients	5
Rural	Practice not serving VFC eligible patients	2
	Illness forced business to close	1
	Hospital closed Obstetric department	1

Working with the Immunization Program's CDC Project Officer and the CDC Program Operations Branch Chief, a teleconference was conducted in October 2008 and again in January 2009 to explain to stakeholders the funding mechanism used for distribution of 317 discretionary money. The Immunization Program again requested additional 317 funding in December 2008 and was told by the CDC that no further discretionary funds were available.

The Nevada State Immunization Program has communicated and addressed each issue and request of the program in a timely and responsible manner. The program is committed to immunizing the children of Nevada and providing a system in which vaccine availability reduces vaccine preventable disease, understanding it takes multiple strategies and engaged stakeholders to accomplish this goal.

State Childhood Vaccine Supply Policy 2007					
(1) Universal	**(2) Universal Select**	**(3) VFC & Underinsured**	**(4) VFC & Underinsured Select**	**(5) VFC only**	**(6) Other**
Alaska New Hampshire New Mexico Northern Marianas Islands Rhode Island Vermont Washington* ***(Transitioning to VFC Only)** Wyoming	Connecticut Hawaii Idaho* ***(Transitioning to VFC Only)** Maine Massachusetts North Carolina* ***(Transitioning to VFC Only)** North Dakota South Dakota Wisconsin	District of Columbia Georgia Houston Kentucky Maryland Michigan Minnesota New Jersey New York City New York State San Antonio Texas Utah	Arkansas Chicago Guam Illinois Puerto Rico South Carolina	Alabama California Colorado Delaware Florida Indiana Iowa Kansas Louisiana Mississippi Missouri Montana Nebraska Nevada Ohio Oklahoma Philadelphia Pennsylvania Tennessee Virgin Islands Virginia West Virginia	Arizona Oregon
8	9	13	6	22	2

Note: The Marshall Islands, Micronesia, and Palau are non-Medicaid participants, thus do not participate in VFC.

Definitions:

1. **Universal**: Through a combination of VFC, 317 and state funding, the immunization project supplies ALL routinely recommended pediatric vaccines to all public and private VFC enrolled providers to vaccinate all children in the project area. (Select this option ONLY if this policy applies to both public and private providers)..
2. **Universal-Select**: Through a combination of VFC, 317 and state funding, the immunization project supplies all, but a few, routinely recommended pediatric vaccines to ALL public and private VFC enrolled providers to vaccinate all children in the project area.(Select this option ONLY if your policy applies to both public and private providers). Please list vaccines not supplied in the text box below..
3. **VFC & Underinsured**: Through a combination of VFC, 317 and state funds (if applicable), the immunization project supplies ALL routinely recommended pediatric vaccines to all public and private VFC enrolled providers to vaccinate ONLY VFC and under-insured children. (Select this option ONLY if your policy applies to both public and private providers.)
4. **VFC & Underinsured-Select**: Through a combination of VFC, 317 and state funds (if applicable), the immunization project supplies ALL but a few, routinely recommended pediatric vaccines to ALL public and private VFC enrolled providers to vaccinate ONLY VFC and under-insured children. (Select this option if the project limits the supply of certain vaccines such as PCV7 or MCV4 to VFC eligible children ONLY in BOTH public and private settings.) Please list vaccines not supplied in the text box below.
5. **VFC-Only**: (Private providers) Through the use of VFC funds, the immunization project supplies all routinely recommended pediatric vaccines to private VFC enrolled providers to vaccinate VFC eligible children only. (Select this option if only VFC funded vaccine is supplied to private providers. Private providers do not receive 317 or state funded vaccine for underinsured children. However, the underinsured may be served via VFC, 317, and/or state/local funds in public clinics.).
6. **Other**: Further Explanation of Policy not described in any of the options posted above.

Source: 2007 VFC Management Survey

NEVADA VFC PROVIDER ENROLLMENT DATA
As of 01/30/2009

• Base Enrollment in 1994	110
• Enrollment as of 12/31/08	316
• Providers Currently Enrolled	305
• Number of 2009 Reenrollments Received	192
• Providers with Delegated Authority	128

NEVADA'S IMMUNIZATION COALITIONS

Purpose: The Nevada Immunization Coalition (NIC) is a diverse partnership of individuals, businesses and organizations committed to improving and protecting the health of children, teens, adults, and seniors in Nevada.

Mission: Our mission is to promote health and prevent the incidence of vaccine preventable diseases in Nevada through community partnerships and education.

Vision: Our vision is to have at least 80% of Nevada's 2-year olds appropriately immunized by 2010, and to encourage appropriate immunizations throughout the life span.

Goals:

Goal 1 - Develop and sustain an effective community organization
Goal 2 - Provide immunization awareness, education and access to the community
Goal 3 - Provide immunization information, education, and support to providers
Goal 4 - Advocate for policy changes to maximize immunization levels

Each regional coalition has a community board that addresses immunization issues at the local level through developing partnerships and organizing special projects, while supporting our statewide initiative of increasing our immunization rates. The Northern Nevada Immunization coalition works with communities in the north and rural areas, while the Southern Nevada Immunization Coalition works with communities in Clark County.

The Nevada Immunization Coalition and each regional coalition have worked with the Nevada State Immunization Program to inform all partners and stakeholders of changes proposed within the program. Proposed changes to the Immunization policy due to increasing number of recommended vaccines and declining funding have been discussed for many years and the immunization coalition have assisted in conversations with partners and stakeholders on this issue.

Key stakeholders include:

- Health Plans
- State and local government
- Public Health Departments
- Healthcare Providers
- Hospitals
- Universities
- Non-profit organizations
- Businesses
- Faith based organizations
- Research Services
- Vaccine Manufacturers

NEVADA'S IMMUNIZATION COALITIONS PARTNERS & MEMBERS

Northern Nevada Immunization Coalition

Insurance
AMERIGROUP Community Care
Hometown Health
Saint Mary's Health Plans

Pharmaceuticals
GlaxoSmithKline
MedImmune, Inc.
Merck Vaccines
Sanofi Pasteur
Wyeth Pharmaceuticals

Education
Douglas High School
High Sierra Health Education Center
Washoe County School District
University of Nevada Center for Education and Health Services Outreach
University of Nevada School of Medicine

Health Care Providers/Hospitals/Pharmacy
Carson Tahoe Regional Healthcare
Don's Pharmacy
Dr. Columbo's Office
Northern Nevada Medical Center
Orvis Nursing Clinic
Raley's Pharmacy
REMSA
Renown Medical
Saint Mary's Hospital

Public Health Services
Carson City Health & Human Services
Nevada Health Centers
HAWC
Kids to Seniors Korner
Washoe County District Health Department

Non-Profit Organizations & Services
NV AAP Chapter
NV AFP Chapter
Human Services Network
Nevada Oral Health Coalition
Nevada Public Health Foundation
Nevada State Board of Pharmacy
Northern Nevada Maternal Child Health Coalition
Reno/Sparks Rotary Clubs
Saint Mary's Foundation
North Lake Tahoe Fire Protection District
Sparks Fire Department

The Children's Cabinet

For Profit Organizations
Wal-Mart
R&R Partners

SOUTHERN NEVADA IMMUNIZATION COALITION MEMBERSHIP LIST

Over 100 individual members representing health and childcare organizations, public health and social service agencies, volunteer and community service groups, schools, government, businesses and individuals.

Organization	Location
Public Health Department	
Southern Nevada Health District	Las Vegas
Healthcare Providers / Physician Offices	
Bright Futures Pediatrics	Las Vegas
Community Outreach Medical Center	Las Vegas
Helping Kids Clinic	Las Vegas
Hope Pediatric Centers	Las Vegas
Kids Healthcare Clinic – UNR School of Med	Las Vegas
Lake Mead Pediatrics	Las Vegas
Nevada Health Centers	Las Vegas
Southwest Medical Associates	Las Vegas
UMC Lied Ambulatory Clinic	Las Vegas
Las Vegas Paiute Clinics	Las Vegas
Basic High School -Based Health Center	Henderson
San Martin de Porres Medical Clinic	Las Vegas
Health Plans / Health Consultants / Purchasers/Hospitals	
Anthem Blue Cross Blue Shield Partnership	
Health Plan of Nevada	Las Vegas
Culinary Health Fund	Las Vegas
Beech Street, A Viant Network	Lake Forest, California
St. Rose Hospital	Henderson
Health Strategies, Inc	Las Vegas
Government	
Nevada Immunization Program	Carson City
Office of Minority Health	Las Vegas
Nevada Women's Infant & Children (WIC) Program	Carson City & Las Vegas
Family Resource Centers	Las Vegas
Las Vegas Clark County Urban League	Las Vegas
Clark County Fire Department	Las Vegas
Housing Authority of the City of Las Vegas	Las Vegas

NEVADA'S IMMUNIZATION COALITIONS PARTNERS & MEMBERS

Non Profit Organizations	
American Academy of Pediatrics – NV Chapter	Las Vegas
Candlelighters Childhood Cancer Foundation	Las Vegas
Acelero Learning Clark County	Las Vegas
AHEC of Southern Nevada	Las Vegas
Nevada Covering Kids & Families	Las Vegas
Catholic Charities of Southern Nevada	Las Vegas
Las Vegas Clark County Urban League	Las Vegas
United Way of Southern Nevada	Las Vegas
American Lung Association – Las Vegas	Las Vegas
Sunrise Children's Foundation	Las Vegas
HealthInsight	Las Vegas & Salt Lake City, Utah
Courtney's Children Foundation	North Las Vegas
Education	
Clark County School District – Nursing Depart.	Las Vegas
University of Nevada School of Medicine (Las Vegas) Pediatrics	Las Vegas
University of Nevada School of Dental Medicine	Las Vegas
Nevada Institute for Children's Research & Policy UNLV	Las Vegas
Business	
Global Professional Medical Consulting	California
Immuvax	Las Vegas
Language Sources	Henderson
Benson, Baker, Bertolodo & Carter Law Corporation	Henderson
Wal-Mart	Nevada Region
Faith-Based	
Victory Missionary Baptist Church	Las Vegas
Research Services	
Crowther Research	Henderson
Vaccine Manufacturers	
GlaxoSmithKline	
Merck	
MedImmune	
Sanofi Pasteur	
Wyeth	

SURVEILLANCE OF VACCINE PREVENTABLE DISEASES IN NEVADA: AN OVERVIEW

Although Nevada has ranked below the national average for immunization of children ages 19-35 months, the incidence of vaccine preventable diseases in Nevada has been **lower** than in states with the highest immunization rates.

In Nevada, the incidence of:

- Pertussis – down (62%) from 8/100,000 in 1995 to 3/100,000 in 2006
- Mumps – down (75%) from 0.8/100,000 in 1995 to 0.2/100,000 in 2006
- Invasive HIB – down (86%) from 3.5/100,000 in 1994 to 0.5/100,000 in 2005

How can the incidence of disease be decreasing in Nevada given the low immunization rates revealed by the National Immunization Survey?

- 2007-2008 Kindergarten Survey revealed that 96% of Nevada's kindergarteners are immunized.
- Herd Immunity – when a large percentage of the population is vaccinated, the spread of certain infectious diseases is prevented thereby protecting the un- or under- vaccinated population.
- The National Immunization Survey only interviewed the parents and providers of 250 children who live in Nevada. The immunization rate of Nevada's 19 – 35 month old children may be better than the NIS reveals. CDC experts agree that the NIS may be grossly inaccurate.

Immunization and Vaccine Preventable Disease Rates:

A Comparative Review

Developed by:

Nevada State Health Division
Department of Health and Human Services

JIM GIBBONS
Governor

RICHARD WHITLEY, MS
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Director

MARY GUINAN, MD, PhD
State Health Officer

Disease prevention is the key to public health. It is always easier and better to prevent a disease than to treat it. Vaccines help prevent infectious diseases and save the lives of people who receive them. In addition, vaccines protect those who come into contact with unvaccinated individuals and are responsible for the control of many infectious diseases that were once common in our country, including polio, measles, diphtheria, tetanus, pertussis (whooping cough), mumps, rubella (German measles), and Haemophilus influenzae type b (Hib).

Newborn babies are passively immune to many diseases because they have antibodies from their mothers. The duration, however, of such congenital short lasting immunity may be a month to about one year. It should be noted that young children do not have maternal immunity against some vaccine-preventable diseases, such as pertussis.

When there is no vaccine available for a certain disease, the number of people contracting such disease is usually high. However, when immunization for that disease becomes available the number of those vaccinated gradually starts to rise. As with all pharmaceutical products vaccines may produce adverse reactions. Compared with illnesses and complications associated with vaccine-preventable diseases (VPD) these adverse reactions are almost always few and mild. As the number of vaccinated individuals increases, the number of cases (those who contract the disease) begins to drop to levels that are comparable to or even lower than the level of those who develop adverse reactions as a result of vaccination.

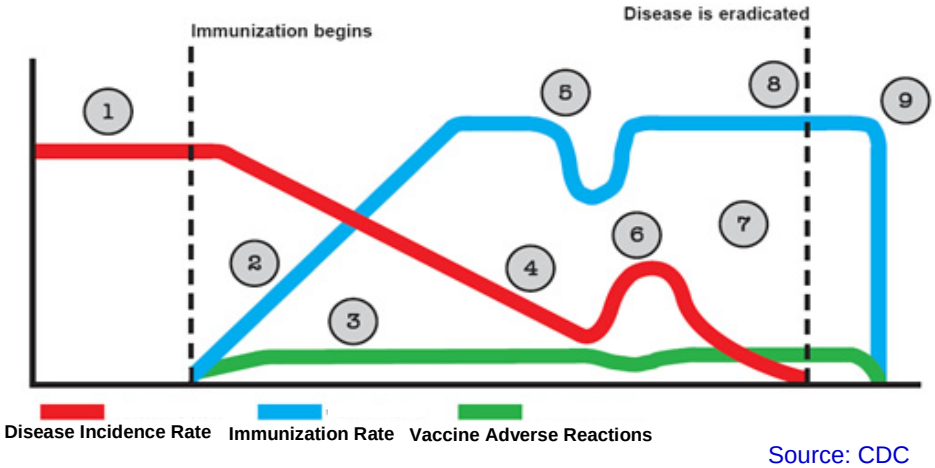
At this point, however, most people who may never experience the disease start turning their attention from worry about the disease to concerns about possible side-effects/adverse reactions associated with the vaccine. Few individuals may start questioning whether the vaccine is necessary or safe, and some people may stop getting immunized. When the number of unimmunized individuals increases, disease numbers (frequency and rate) start to rise again leading to more frequent outbreaks. In addition to the negative societal and financial impact, disease outbreaks are reminders of how heavy disease burdens can be on the community and public health system. Eventually individuals will start immunizing again and vaccination rates will increase leading to a decline in disease incidence.

Ultimately, the goal for each vaccine is to reach and maintain a sufficiently high rate of immunized individuals (Herd Immunity) that will eventually result in disease elimination. So far this has happened only with smallpox that was eradicated, and it could happen with other diseases, such as polio which was eliminated and measles that is about to be eliminated in our country. When there are no more susceptible individuals, and no more cases of disease, the pathologic agent gets eliminated/eradicated and the vaccination is discontinued.

Graph 1 below demonstrates the above relation and illustrates the inversely proportionate relationship between disease incidence and immunization status; when immunization rates decrease disease incidence rates increase.

Graph 1

Immunization and Vaccine Preventable Disease Occurrence



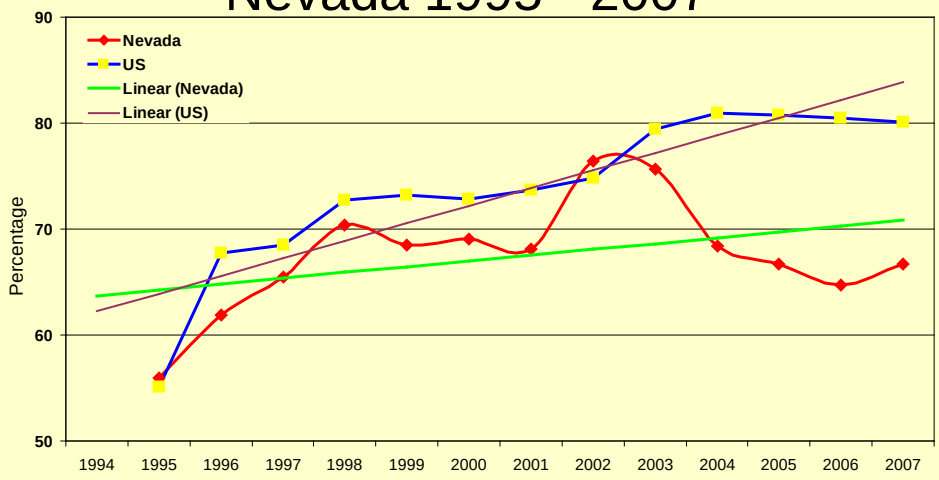
Source: CDC

1. Before vaccine availability – Stable and increased disease rate.
2. Increasing rate of immunization.
3. Increasing rate of vaccine-adverse reactions.
4. Decreasing disease incidence rate is.
5. Decline in the vaccination rate.
6. Disease outbreak following the decline in vaccination rate.
7. Increase in vaccination rate leading again to a decline in disease incidence rate.
8. Reaching maximum level of immunization (Herd Immunity) and elimination/eradication of disease.
9. Cessation of vaccination after disease eradication.

According to the most recent 2008 National Immunization Survey (NIS), Nevada has seen marginal increases in the immunization rates yet the state continues to rank poorly (compared to the national average) in terms of the percentage of children who were immunized. *Graph 2* illustrates the immunization trends in Nevada and nationally in the period 1995 to 2007. As seen in the graph, Nevada rates were below the national average for the majority of this time period.

In order to evaluate the significance of this finding and to analyze its impact on the incidence and trends of occurrence of vaccine-preventable diseases (VPD) in Nevada a thorough and careful comparative evaluation of both immunization and VPD incidence rates was conducted.

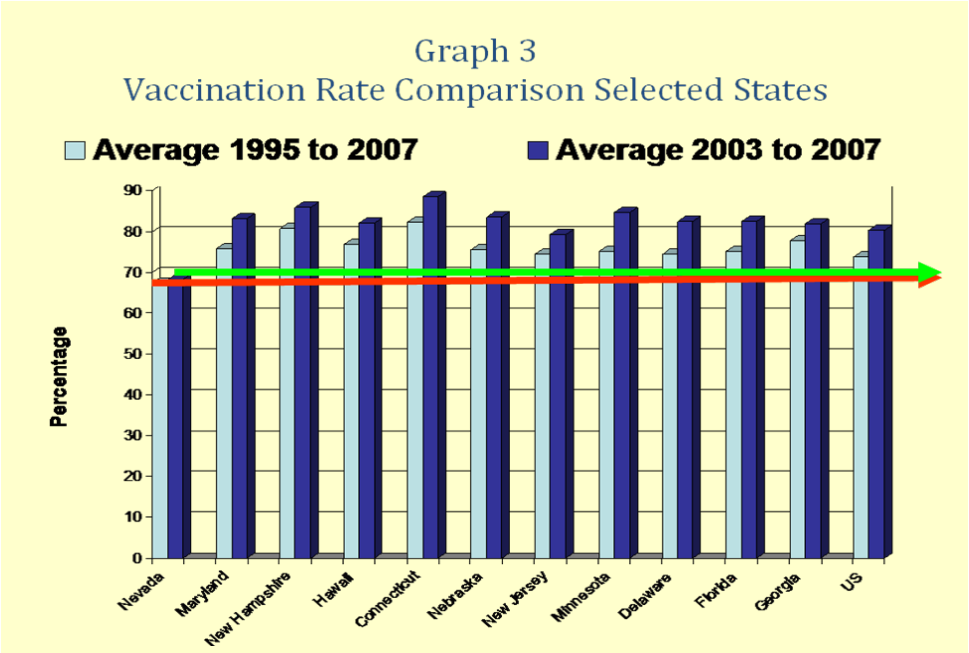
Graph 2



Source: CDC, National Immunization Survey 1994 – 2007 Immunization Coverage Level in Selected States Children 19 – 35 Months of Age by Year

Average immunization rates during the period (1995 – 2007) in Nevada were compared to that in ten selected states (Maryland, New Hampshire, Hawaii, Connecticut, Nebraska, New Jersey, Minnesota, Delaware, Florida and Georgia) who historically maintained the highest immunization rates in the nation during this same time period. To determine the validity of such findings, these rates were further compared during the most recent five-year period (2003-2007).

Graph 3

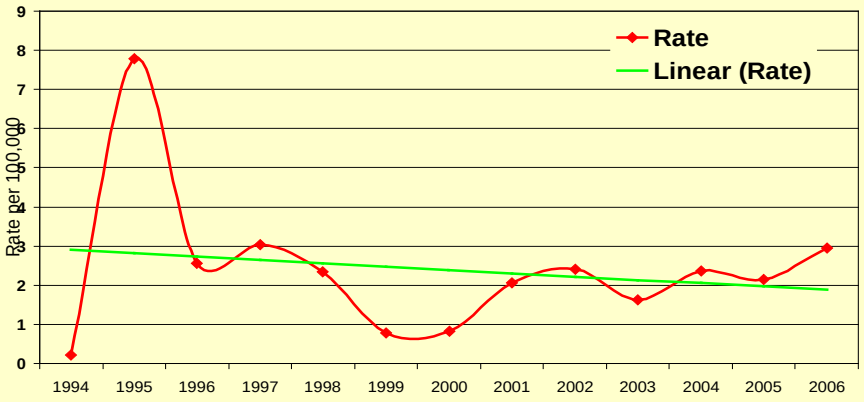


As demonstrated in *Graph 3*, during both intervals Nevada immunization rates were lower than the rest of the nation. In addition, it was clearly observed that Nevada specific rates and trends of selected vaccine-preventable diseases such as pertussis, mumps and invasive Haemophilus influenza type b (Hib) did not manifest any increase during the same period of time (1994 - 2006). Moreover, contrary to all expectations these rates continued to significantly decrease. In order to verify if this contradictive finding was real, all vaccine-preventable diseases were evaluated. It is important, however, to mention that case frequency and rates for less common VPD such as polio, measles, diphtheria, tetanus, and rubella were very low and could not be used for meaningful analysis and interpretation.

Pertussis

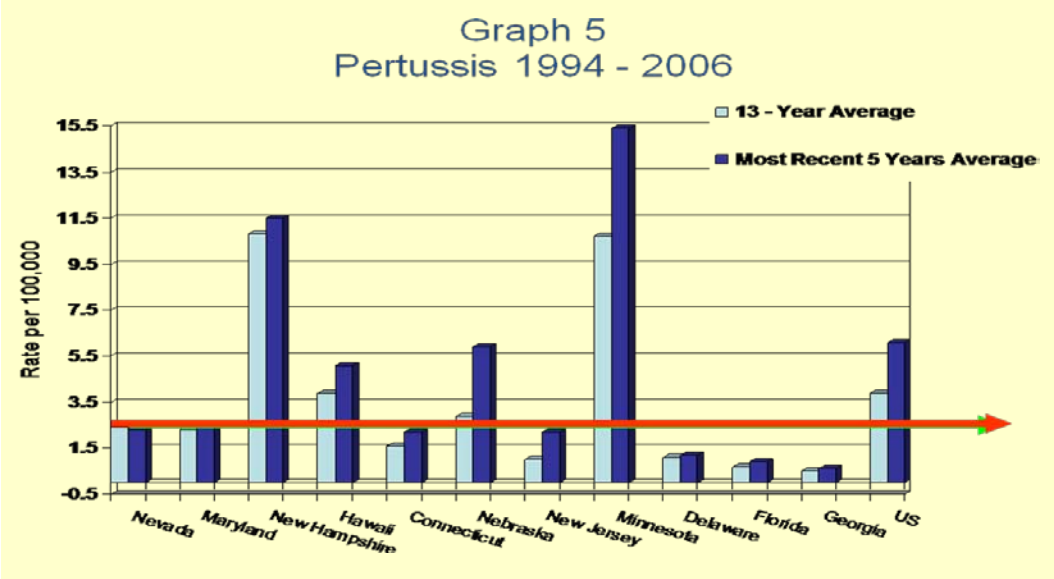
In spite of the minimal improvement in vaccination rates in Nevada, during the period between 1994 and 2006 the incidence rate of pertussis in the state showed a significant decrease in *Graph 4.*

Graph 4



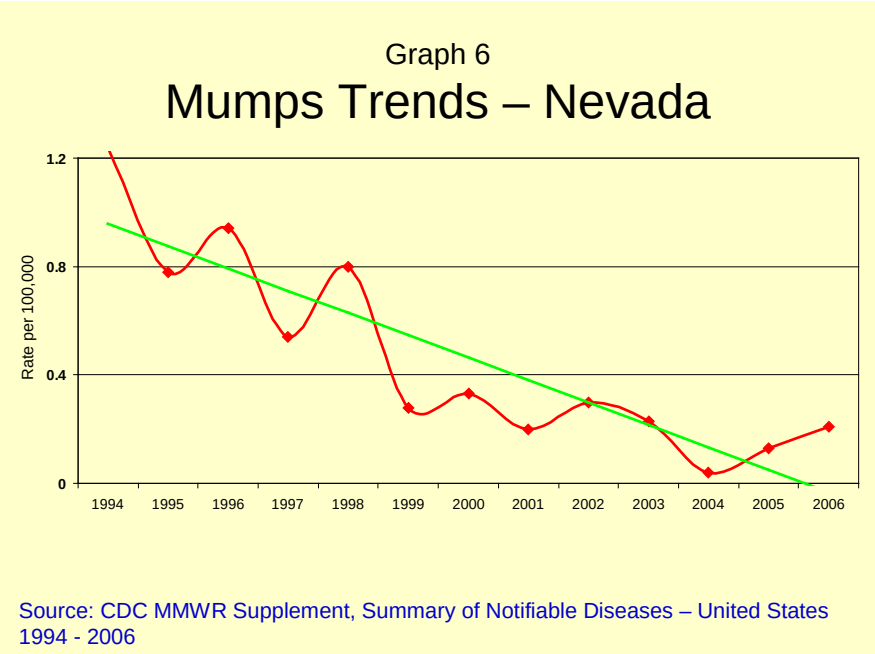
Source: CDC MMWR Supplement, Summary of Notifiable Diseases – United States 1994 - 2006

In addition, the average incidence rate of pertussis in Nevada during the period between 1994 and 2006 was lower than the national rate, with a more significant decrease in the most recent five-year period. In fact the average incidence rate of pertussis in Nevada between 1994 and 2006 and in the most recent five-year period between 2002 and 2006 was lower than the national rate and the rate in states with consistently high immunization rates such as New Hampshire, Hawaii, Nebraska and Minnesota (See *Graph 5)*.



Mumps Trends

When mumps incidence rate data was analyzed, a relationship similar to that identified in pertussis incidence rates also became clear. In spite of the minimal improvement in vaccination rates in Nevada, during the period between 1994 and 2006 the incidence rate of mumps in the state also showed a significant decrease in *Graph 6*.

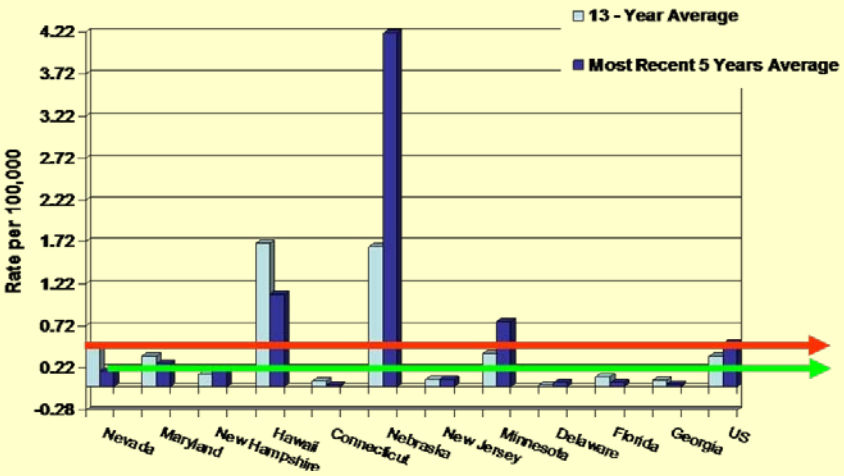


Source: CDC MMWR Supplement, Summary of Notifiable Diseases – United States 1994 - 2006

The average incidence rate of mumps in Nevada during the period between 1994 and 2006 was comparable to the national rate, with a downward trend line in the most recent five-year period (2002 and 2006); Nevada's average rate during this *period was lower than the national average.* The average incidence rate of mumps in Nevada between 1994 and 2006 *(Graph 7)* and in the

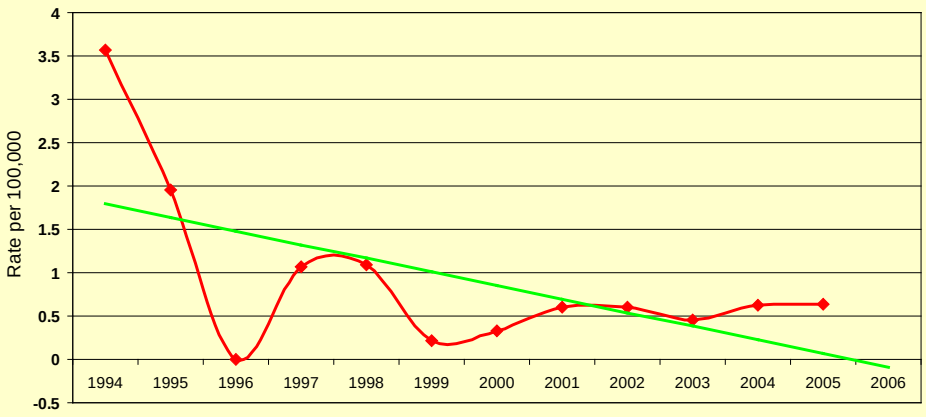
most recent five-year period was lower than the rate in states with highest immunization rates in the nation such as Hawaii, Nebraska and Minnesota.

Graph 7
Mumps 1994 - 2006



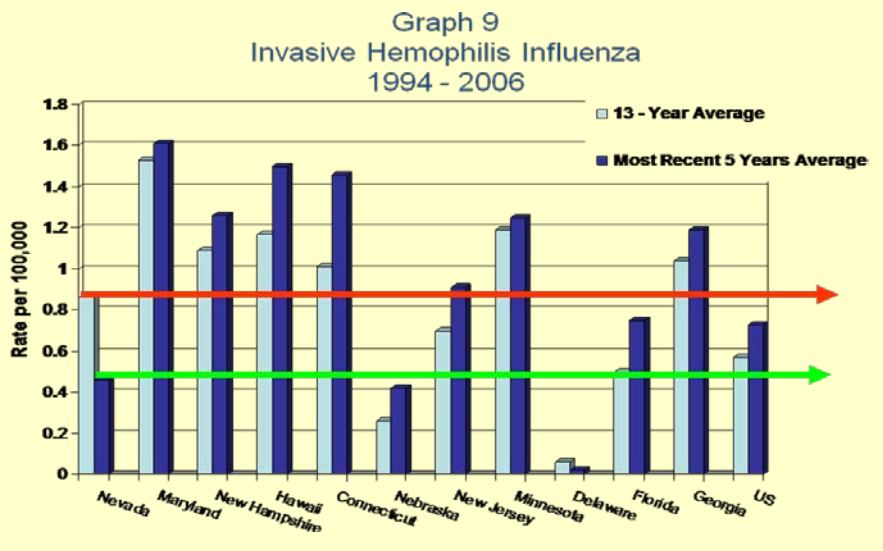
Haemophilus influenza Type b (Hib) - Trends
Between 1994 and 2006 Nevada's incidence rate of invasive Haemophilus influenza Type b (Hib) showed an overall decrease despite little improvement in vaccination rates (See *Graph 8).*

Graph 8
Invasive Hemophillis Influenza
Trends – Nevada



Source: CDC MMWR Supplement, Summary of Notifiable Diseases – United States 1994 - 2006

The average incidence rate of invasive Haemophilus influenza in Nevada in the period between 1994 and 2006 was higher than the national rates. The trend line, however, represented a decrease in the most recent five-year period between 2002 and 2006. In the most recent five-year period the rate in Nevada (0.46/100,000) was significantly lower that the national rate (0.73/100,000). Indeed, the average incidence rate of invasive Haemophilus influenza in Nevada between 1994 and 2006 and in the most recent five-year period between was lower than the rate in states with highest immunization rates in the nation such as Maryland, New Hampshire, Hawaii, Connecticut, New Jersey, Minnesota, Florida, and Georgia G*raph 9.*



Notes

It is essential to note that the National Immunization Survey (NIS) data collection depends on self reporting during the interview, while data and information on the incidence of notifiable vaccine-preventable diseases is usually collected from healthcare providers and laboratory tests reported to local, state, and national health authorities. The National Center for Disease Control (CDC) and Prevention is the source for both immunization rates (from NIS) and notifiable diseases data and information from the Morbidity and Mortality Weekly Report (MMWR).

Summary

While the goal is to have all children vaccinated, Nevada has not seen an increase in rates of vaccine preventable diseases, which may indicate that Nevada's low immunization rates are more a reflection of inadequate record keeping and a lack of shared information.